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exam success in ECONOMICS

for Cambridge IGCSE® & O Level

Terry Cook

Oxford excellence for Cambridge IGCSE® & O Level

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Contents

Please go to **www.oxfordsecondary.com/esg-for-caie-igcse** for the answers to the 'Apply' questions.

Introduction

Matched to the latest Cambridge assessment criteria, this in-depth Exam Success Guide brings clarity and focus to exam preparation with detailed and practical guidance on raising attainment in IGCSE® and O level Economics.

This Exam Success Guide can be used alongside *Essential Economics for Cambridge IGCSE® and O Level*, third edition, and contains numerous references to the Student Book.

This Exam Success Guide:

- is fully matched to the latest Cambridge IGCSE® and O level syllabuses
- includes comprehensive **Recap** and **Review** features with a focus on key course content
- equips you to improve your exam marks using the sample responses and examiner commentary in **Raise your grade** sections
- will help you to avoid mistakes with **Common error** tips
- will help you to understand exam expectations with **Exam tips**
- equips you to test your knowledge with **Apply** questions, with answers available online
- provides **Revision checklists** that enable you to build a record of your revision
- is perfect for use alongside the *Essential Economics for Cambridge IGCSE® and O Level*, third edition, or as a standalone resource for independent revision.

Key revision points are included as follows.

- **You need to know:** a list appears at the start of every section and summarises the key things you need to know for each topic.
- **Key terms:** definitions of the key terms and concepts are given the first time the term is used in the book and many also appear in the **Glossary**.

- **Recap:** each section of the book recaps the key content with easy-to-digest points.

- **Exam tips:** these give clear details on how to maximise marks in the exam.

- **Common errors:** these notes give an indication of areas of the syllabus where students commonly struggle. By looking closely at these, you should avoid making similar mistakes in your exam.

- **Apply:** these sections provide targeted exam-style questions for you to answer. They have been written specifically for this Exam Success Guide and will help you to apply your knowledge and understanding in the exam. Answers to these questions are available online.

- **Review:** throughout each section of the book, you can review and reflect on the work you have done and find advice and guidance on how to further refresh and deepen your knowledge and understanding. This includes references to the Student Book.

- **Raise your grade:** a section appears at the end of each of the six units. This section includes exam-style questions, an analysis of these questions, the mark scheme, a student answer and examiner feedback. The feedback indicates why a particular mark was awarded to the answer and includes advice on how the answer could be improved in order to gain a higher mark.
- **Revision checklist:** a checklist appears at the start of each unit and can be used to record your revision.

How will you be assessed?

All candidates take two papers for their IGCSE® or O level Economics exam, paper 1 and paper 2.

Paper 1, multiple-choice questions (45 minutes)

There are 30 multiple-choice questions, each one worth 1 mark, making a total of 30 marks. This paper represents 30% of the total marks.

Paper 2, structured questions (2 hours 15 minutes)

There is one compulsory question that carries 30 marks. You are then required to answer three questions from a choice of four. Each of these carries 20 marks, making a total of 90 marks. This paper represents 70% of the total marks.

Assessment objectives

There are three assessment objectives (AOs). These are:

- knowledge and understanding (AO1)
- analysis (AO2)
- evaluation (AO3).

Knowledge and understanding

You should be able to:

- show knowledge and understanding of economic definitions, concepts and theories
- use economic terminology.

Analysis

You should be able to:

- select, organise and interpret data
- use economic information and data to recognise patterns and to deduce relationships
- apply economic analysis to written, numerical, diagrammatic and graphical data
- analyse economic issues and situations, identifying and developing links.

Evaluation

You should be able to:

- evaluate economic information and data
- distinguish between economic analysis and unreasoned statements
- recognise the uncertainties of the outcomes of economic decisions and events
- communicate economic thinking in a logical manner.

Assessment structure

Assessment objective	Paper 1: 30%	Paper 2: 70%
AO1 Knowledge and understanding	50	35
AO2 Analysis	50	35
AO3 Evaluation	0	30

Unit 1:
The basic economic problem: economic goods, choice and the allocation of resources

Your exam

The basic economic problem is part of paper 1, multiple-choice questions, and paper 2, structured questions. Paper 1 is a 45-minute exam and makes up 30% of the total marks. Paper 2 is a 2-hour 15-minute exam and makes up 70% of the total marks.

Your revision checklist

Tick these boxes to build a record of your revision

Specification	Theme	Tick	Tick	Tick
1.1 The nature of the economic problem	1.1.1 Finite resources and unlimited wants			
	1.1.2 Economic and free goods			
1.2 The factors of production	1.2.1 Definitions of the factors of production and their rewards			
	1.2.2 Mobility of the factors of production			
	1.2.3 Quantity and quality of the factors of production			
1.3 Opportunity cost	1.3.1 Definition of opportunity cost			
	1.3.2 The influence of opportunity cost on decision making			
1.4 Production possibility curves	1.4.1 Definition of a production possibility curve			
	1.4.2 Points under, on and beyond a production possibility curve			
	1.4.3 Movements along a production possibility curve			
	1.4.4 Shifts in a production possibility curve			

1.1 The nature of the economic problem

You need to know:

- **the definition of the economic problem and you need to be able to give examples of the economic problem in the context of consumers, workers, producers and governments**
- **the difference between economic goods and free goods**

Common error

Do not confuse the existence of the economic problem in general with specific examples of particular economic problems in certain countries such as a relatively high rate of inflation or unemployment.

Key terms

Economic problem: a situation that arises as a result of the existence of finite resources and unlimited wants

Unlimited wants: the existence of wants that are infinite

Resources: the factors of production that are used to produce goods and services

Finite resources: the existence of resources that are limited

Scarcity: a situation where there is a limited supply of a product or resource compared with the demand for it

Exam tip

You need to understand that the existence of **scarcity** makes choice inevitable.

Apply

1. Explain what is meant by the 'economic problem'.
2. Explain why choice is so important in economic decision making.

1.1.1 Finite resources and unlimited wants

Definition of the economic problem

The **economic problem** exists because people have infinite or **unlimited wants** but there are only limited or **finite resources** to satisfy those wants. As a result of this situation, choices have to be made.

▲ **Figure 1** *The economic problem*

Examples of the economic problem in different contexts

Consumers	Most consumers are unable to buy everything that they want at the same time. They therefore have to make a choice. For example, a family may decide to buy a new car rather than have a holiday.
Workers	A worker may be able to work longer hours and earn more money, but this will involve making a choice and the sacrifice that is given up is leisure time, reduced as a result of working longer hours.
Producers	Producers will only have so many resources at their disposal, for example, a fixed number of workers and machines, therefore if they produce more of one good, such as cars, they will have to produce less of another good, such as vans.
Governments	Governments have a limited amount of money to spend on essential services, therefore if they spend more on one service, such as education, they will have to spend less on another service, such as defence.

Recap

- The economic problem comes about because there are not enough resources to produce all the products that are wanted, that is, there are finite resources and unlimited wants.
- Resources are scarce so if resources are used to produce one product, they cannot be used to produce another.
- Decision making over the use of resources involves making a choice.
- Making a choice over what is done with resources involves a sacrifice, that is, giving up something else that might have been produced with those resources.

1.1.2 Economic and free goods

Economic goods

An **economic good** is one that is scarce in relation to the demand for it. Therefore in order to acquire an economic good a choice will need to be made, that is, it has an opportunity cost. Also as such goods are scarce relative to the demand for them a price will need to be paid in order to obtain such goods.

Free goods

It has already been stated that in the case of most goods a sacrifice will need to be made. However with some goods they are so abundantly available that there is no sacrifice involved in using them, therefore there is no opportunity cost. For example, air and seawater are **free goods** because people have as much access to them as they want. One person can enjoy these resources without stopping others from enjoying them too. There is no need, therefore, to charge a price for them.

	Economic goods	Free goods
Definition	Products that are scarce relative to the demand for them	Products that are abundant
Sacrifice	Using an economic good involves making a sacrifice	Using a free good does not involve making a sacrifice
Examples	Food, clothing, car	Air, seawater

Key terms

Economic good: a good that is scarce relative to the demand for it so a price is charged for this good

Free good: a good that is not scarce relative to the demand for it so no price is charged for this good

Common error

It is important to remember that what determines whether a good is an economic good or a free good is not so much whether people have to pay for it but whether resources are required in order to produce it.

Recap

- Goods can be divided into two types.
- An economic good is relatively scarce so a price will need to be charged for it. A sacrifice is involved in enjoying such a good. Most goods are of this type.
- A free good is abundant so it will not be necessary to charge a price as no sacrifice is involved when enjoying such a good.

Exam tip

You need to make it clear that an economic good involves an opportunity cost while a free good does not have an opportunity cost.

Activity

To what extent do you think clean air can be regarded as a free good?

Research

An economic good exists as a result of the economic problem (see section 1.1.1). A case study on the price of tickets to a football match is on pages 4–5 of the Student Book as well as a case study on 'the tragedy of the commons' on page 5.

You need to know:

- **definitions of land, labour, capital and enterprise; examples of land, labour, capital and enterprise; and examples of the nature of each factor of production**
- **the influences on the mobility of the various factors of production**
- **the cause of changes in the quantity and quality of the various factors of production**

1.2.1 Definitions of the factors of production and their rewards

Land

The **factor of production land** refers not only to the site on which a factory is built or to the area where farming takes place, but also to natural resources in the widest sense, including such examples as water and coal.

Labour

The factor of production **labour** refers to both the physical and mental contribution of workers to the production process. Examples would therefore include the physical effort of a coal miner and the mental effort of an accountant. Labour is sometimes referred to as human capital.

Capital

The factor of production **capital** refers to those items used in the production process that are human made. Examples include machines, tools, buildings and equipment.

Enterprise

The factor of production **enterprise** refers to the bringing together or coordinating of the other factors to achieve a certain purpose such as making a profit. This will involve taking risks.

Common error

Do not confuse the use of the term 'capital' as a factor of production with another use of the term to refer to money.

Exam tip

Risk taking distinguishes an **entrepreneur** from other workers. The risk arises from the uncertainty of enterprise initiatives.

Exam tip

A helpful way to remember the four factors of production is to think of your cell phone **c**(apital), **e**(nterprise), **l**(and) and **l**(abour).

Key terms

Factors of production: the economic resources of land, labour, capital and enterprise that are used in the production process

Land: a general term used to describe the gifts of nature used in production

Labour: the human resource enabling both physical work and intellectual work

Capital: the human-made aids to production

Enterprise: the coordination of the other factors of production involving the taking of a risk

Entrepreneur: the person coordinating the other factors of production and who takes a risk in the process

The rewards to factors of production

Factor	Reward
Land	Rent. For example, a payment may need to be made for the site on which a factory will be built and this payment is called rent
Labour	Wages and salaries. Wages are paid to workers when they are paid on an hourly, daily or weekly basis. A salary refers to an annual amount of payment, a proportion of which is usually paid to a worker each month
Capital	Interest. The payment made on any money that is borrowed to buy capital equipment such as machinery or equipment, is called interest
Enterprise	Profit. Enterprise involves the taking of risk and the reward for taking such a risk is called profit

▲ **Figure 2** *A canning factory brings together the four factors of production to create the finished product*

Recap

- There are four factors of production: land, labour, capital and enterprise
- They are combined together to produce products.
- The rewards to the factors of production are rent (land), wages and salaries (labour), interest (capital) and profit (enterprise).

Activity

1. Define the meaning of the factors of production land and labour
2. Explain what is meant by capital as a factor of production
3. Describe how the factor of production enterprise is rewarded

Revision

The factors of production are combined to produce economic goods (see section 1.1.2)

1.2.2 Mobility of the factors of production

Mobility of factors of production

It is possible to distinguish between two types of mobility. **Geographical mobility** refers to the movement of factors of production from one place or area to another. **Occupational mobility** refers to the movement from one use to another.

Key terms

Geographical mobility: the ability of factors of production to move from one area to another

Occupational mobility: the ability of factors of production to move from one use to another

Factor	Geographical mobility	Occupational mobility	Influences on the mobility of factors of production
Land	Land is relatively geographically immobile. It is impossible to move it from one area to another. However, it is possible to reclaim land from the sea, as China and the Netherlands have done.	Land is relatively occupationally mobile in that it is possible to change the use of a given piece of land. For example, land use can be changed from a forest to farming.	Reclamation projects are expensive so the availability of funds will be an important influence on the occupational mobility of land from one use to another.
Labour	Labour is relatively geographically mobile. It can move from one area to another, both within a country and from one country to another. However, there may be obstacles to such movement, such as a reluctance to move from one area to another for personal or family reasons.	Labour is relatively occupationally mobile, especially if labour is able and willing to learn new skills.	The geographical mobility of labour can be influenced by the willingness of governments and businesses to provide financial support to those willing to move from one area to another. Governments can provide and financially support a range of retraining and reskilling initiatives.
Capital	Capital is relatively geographically mobile. Machines and equipment can be moved from one place to another. However, with much larger items of capital, it would be much more difficult, if not impossible, to move them.	Capital is relatively occupationally mobile. However, some items of capital may eventually be replaced by more modern versions over a period of time.	The geographical mobility of capital can be influenced by the funds available to businesses who want to move machinery and equipment from one area to another. The extent of the occupational mobility of labour will depend on how easy it is to use capital equipment in different industries.
Enterprise	Enterprise is relatively geographically mobile as entrepreneurs can move from one area of a country to another and from one country to another.	Enterprise is relatively occupationally mobile as entrepreneurs can move from one occupational area to another. However, the extent of such mobility will depend on whether different occupations require specialist knowledge and experience.	The geographical mobility of entrepreneurs can be influenced by the extent to which they are aware of the profit-making opportunities in different parts of a country or in different countries.

Recap

- The mobility of factors of production can be distinguished between geographical and occupational mobility.
- The extent of the mobility of the various factors of production will be influenced by the availability of funds, government initiatives and the availability of educational, training and networking provision.

Now

1. Distinguish, with the use of examples, between the geographical and the occupational mobility of factors of production.
2. Describe the possible influences on the mobility of factors of production.

1.2.3 Quantity and quality of the factors of production

The quantity of a factor of production is the amount of that factor available in a specific economy.

Factor	Quantity	Quality
Land	The quantity of land available to an economy is relatively fixed although we have already mentioned the actions of the Chinese and Dutch governments in reclaiming land from the sea it is important to view land as a natural resource	The quality of land can be influenced by certain initiatives For example the quality of agricultural land can be improved by the use of crop rotation fertilisers and improved irrigation systems.
Labour	A country's population will be influenced by its birth rate its death rate and by the extent of net migration. However its labour force will also be influenced, for example by changes in its school leaving age changes in its retirement age and changes in its attitude towards women working	The quality of labour can be improved by government initiatives in education and training increasing its school leaving age and by encouraging more people to attend higher education courses
Capital	The quantity of capital will depend on the funds available to firms and governments to purchase the equipment and machinery required in some countries, governments give firms financial support to purchase capital equipment	The quality of capital will depend on the knowledge available to the producers especially the technical knowledge and the extent of the application of new technologies.
Enterprise	The quantity of entrepreneurs can be influenced by government initiatives to encourage the development of an enterprise culture that will encourage more people to become entrepreneurs.	The quality of entrepreneurs can be influenced by the availability of appropriate courses and networking opportunities to ensure that they gain the necessary skills and knowledge to be successful.

Recap

- The quantity of land can be influenced by the reclamation of land from the sea and by the discovery and exploration of resources. The quality of land can be influenced by the use of fertilisers and improved irrigation
- The quantity of labour can be influenced by changes in a country's birth rate, death rate, net migration, school leaving age and retirement age, for example. The quality of labour can be influenced by the availability of appropriate education and training courses.
- The quantity of capital can be influenced by the availability of funds. The quality of capital can be influenced by the extent of the application of new technologies.
- The quantity of entrepreneurs can be influenced by the development of an enterprise culture The quality of entrepreneurs can be influenced by the availability of appropriate courses and networking opportunities.

Activity

Describe what could influence the quantity and quality of labour in an economy.

Connect

Changes in the quantity and quality of resources affect the efficiency of an economy. This can be demonstrated on a production possibility curve, discussed in section 1.4.4

1.3 Opportunity cost

You need to know:

- **definition of opportunity cost and examples of opportunity cost in different contexts**
- **decisions made by consumers, workers, producers and governments when allocating resources**

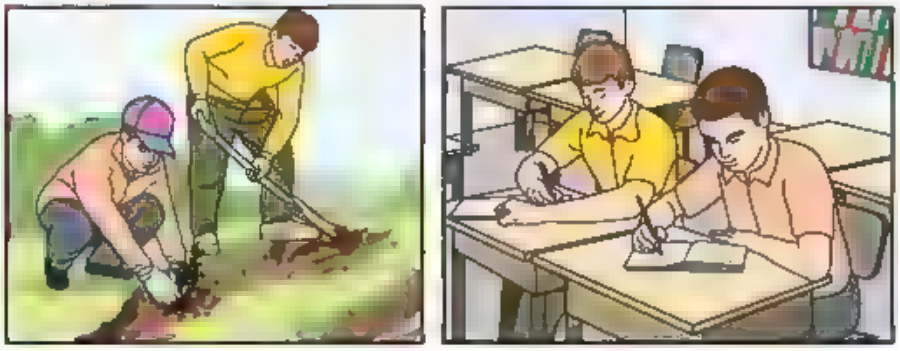
1.3.1 Definition of opportunity cost

Opportunity cost can be defined as the next best alternative that is given up when a decision is made. The opportunity cost is the sacrifice that is made as a result of making a choice

Opportunity cost can be seen in a variety of different contexts. For example, a government may decide to increase its expenditure on education. The opportunity cost of such a decision is that it may have to reduce its expenditure on defence. A person might decide to go to university for three years. The opportunity cost of that decision is the income that could have been gained by working for those three years, but people still choose to go to university because the lifetime average earnings of graduates is higher than that of non-graduates

Key term

Opportunity cost: the next best alternative that is given up when a decision is made



▲ **Figure 3** *The opportunity cost of a poor family's children spending time in school or university will be the loss of wages from that child not working*

Exam tip

Decisions in economics usually involve an opportunity cost because in most cases choosing a particular course of action will involve a sacrifice

Common error

You should stress that opportunity cost is the next best alternative that is given up rather than the benefit that is foregone as a result of taking a decision

An example of opportunity cost in a different context relates to decisions taken by consumers. A person may be unsure whether to buy new clothing or go out for a meal in a restaurant. The person can only afford to do one or the other, but not both. If that person buys new clothing, the opportunity cost of that decision is not going to the restaurant

Recap

- Opportunity cost is the next best alternative that is given up or sacrificed when making an economic choice or taking an economic decision
- The opportunity cost can be regarded as the real cost of any economic decision
- All decisions that relate to possible alternative uses of scarce economic resources involve an opportunity cost

Exam tip

Remember that the concept of opportunity cost can be applied to both production and consumption decisions.

Question

Explain, using an example, how opportunity cost can occur when a choice is made

1.3.2 The influence of opportunity cost on decision making

Opportunity cost has an important influence on decisions made about the allocation of scarce economic resources. The main groups that make up an economy are

- consumers (the people who buy the goods and services)
- workers (the people who supply their labour in return for a wage or salary)
- producers (the people who make and sell the goods and services)
- the government (which can be a producer, a consumer and a lawmaker).

The actions of each of these four groups will involve an opportunity cost, that is, the choice of one option over another will have an effect in terms of the alternative that is sacrificed.

Economic agent	Examples of decisions
Consumers	If a consumer decides to buy a cup of coffee, the opportunity cost is the next best alternative that is not chosen. This could be a cup of tea.
Workers	If a worker decides to work extra hours, the opportunity cost is the next best alternative that is given up. This could be hours of leisure as opposed to hours of work.
Producers	If a producer decides to make one type of good, the opportunity cost is another type of good that is sacrificed. For example, when a farmer decides to grow maize in a field, the opportunity cost could be onions that might otherwise have been grown there.
Governments	If a government, with only a limited amount of revenue, decides to spend more money on health care, the opportunity cost could be the money that might otherwise have been spent on education.

▲ **Figure 4** *The opportunity cost of a government spending more money on health care is spending less money on education*

Explain, using an example of each, how opportunity cost can be applied to decisions taken by

a. workers

b. governments

Exam tip

You need to be able to give a range of examples to show that you clearly understand the meaning of opportunity cost and can apply it in different situations relating to consumers, workers, producers or governments.

- The main groups that make up an economy are consumers, workers, producers and governments.
- Decisions made by these groups involve an opportunity cost.

You need to know:

- the definition of a production possibility curve, and how to draw and interpret appropriate diagrams
- the significance of the location of production points
- the significance of movements along a production possibility curve and opportunity cost
- the causes of shifts in a production possibility curve in terms of an economy's growth, and the consequences of shifts in a production possibility curve in terms of an economy's growth

Key term

Production possibility curve: a graphical representation showing the maximum combination of products that can be produced from given resources and using existing technology at a given time

1.4.1 Definition of a production possibility curve

What is a production possibility curve?

A **production possibility curve** (also called a production possibility frontier) shows the combinations of goods that can be produced in an economy at a particular time, using all the available resources. It is possible for an economy to produce many different products, but a production possibility curve simplifies this by showing the production of just two types of goods.

Drawing and interpretation of appropriate diagrams

A production possibility curve can be drawn as a straight line, as shown in Figure 5. In this situation, an area of land is used to grow two crops: bananas and sugar. The vertical axis shows how many bananas could be grown in terms of thousands of kilograms. If all of the land was devoted to growing bananas, 100 000 kilograms could be produced. The horizontal axis shows how much sugar could be grown in terms of thousands of kilograms. If all of the land was devoted to growing sugar, 50 000 kilograms could be produced.

The production possibility curve not only shows how many bananas could be produced if only bananas were grown, and how much sugar could be produced if only sugar was grown, but also how much of each could be produced if it was decided to produce a combination of the two. The diagram shows that for every kilogram of bananas grown, half a kilogram of sugar would have to be given up.

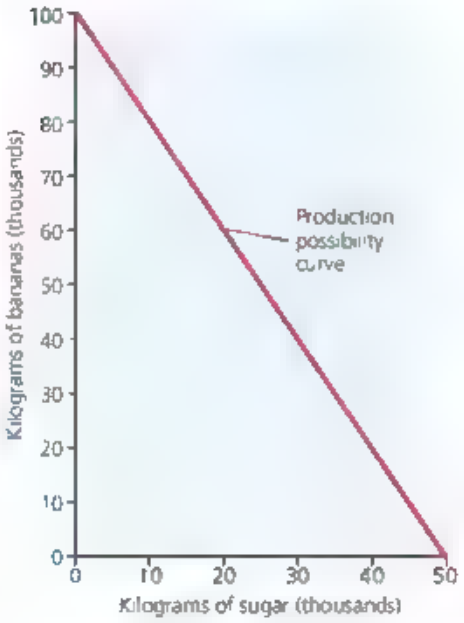
Calculate

Calculate how many thousands of kilograms of sugar are produced when the production of bananas is:

a. 75 thousand kilograms

b. 50 thousand kilograms

c. 25 thousand kilograms



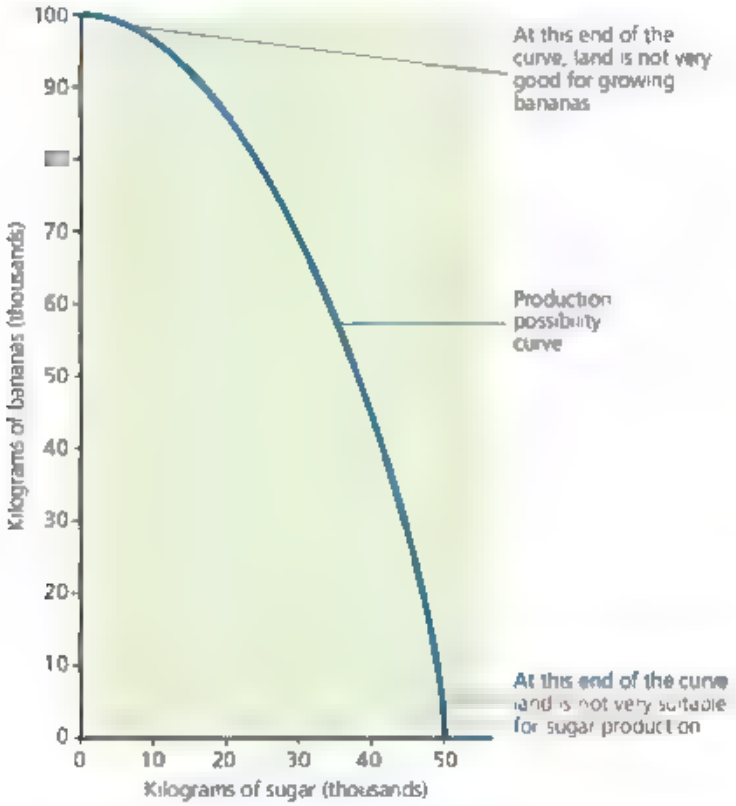
▲ **Figure 5** *A straight line production possibility curve*

Common error

You need to make sure that when you draw a production possibility curve diagram in the exam, the curve touches both the vertical and the horizontal axes.

Figure 5 shows the situation when each area of land is identical, so the production possibility curve is drawn as a straight line. However, this is not always the case and it is more common to find that each area of land is not identical. For example, some land may be more suitable for growing bananas and some land may be more suitable for growing sugar. In this situation, the production possibility curve will be drawn as a curve and not as a straight line. The curve will be steeper as it gets near to the two axes because the production of one crop will involve a greater sacrifice of the other.

This situation can be seen in Figure 6. The production possibility frontier is shown as a curve, rather than as a straight line, because as it gets nearer to the vertical axis, the land is not very good for growing bananas, and as it gets nearer to the horizontal axis, the land is not very good for growing sugar.



▲ **Figure 6** *A curved production possibility frontier*

Exam tip

You need to be able to explain why a production possibility curve is usually drawn as a curve rather than as a straight line.

Common error

Make sure that you correctly label the two axes of a production possibility curve correctly. They should show two types of products that are being produced. Often students incorrectly label them as price and quantity.

Recap

- A production possibility curve illustrates quantities of two goods that can be produced with existing resources at a given point in time.
- A production possibility curve shows different choices that can be made about how to allocate existing scarce resources.

Exam

1. Explain what is shown by a production possibility curve.
2. Analyse the difference between a straight line and a curved production possibility curve.

1.4.2 Points under, on and beyond a production possibility curve

Points under a production possibility curve

Figure 8 shows the production possibility curve where an economy can choose to use its land for either tourism or agriculture. Points D, E and F are under the production possibility curve and these points show a situation where resources are not being used to their maximum potential, that is, there is an inefficient allocation of resources and some of the resources are unemployed.

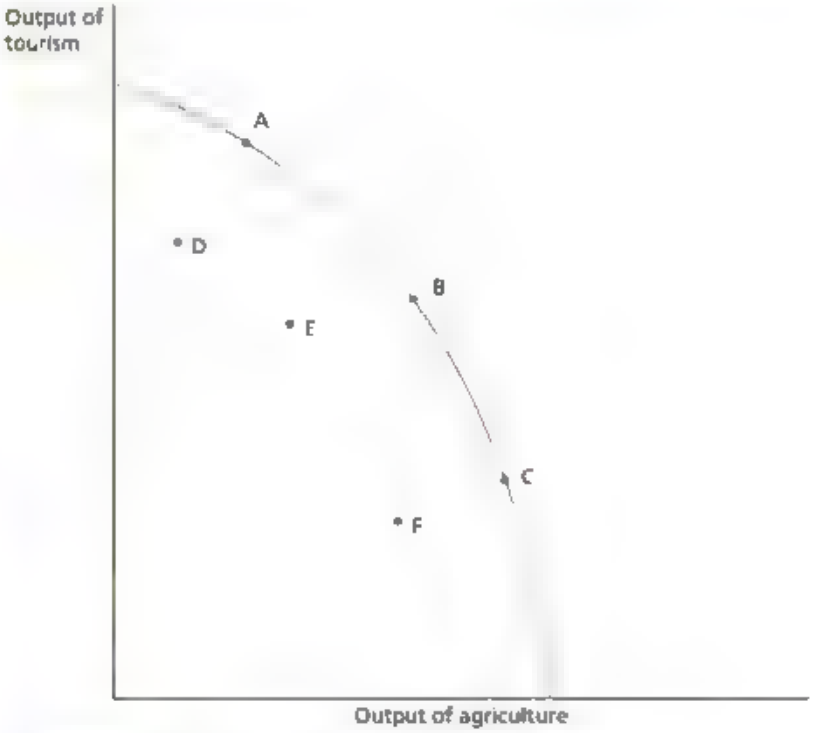
Points on a production possibility curve

In Figure 8, points A, B and C show combinations of agricultural and tourism output that could be produced with the given resources at a given moment in time. There is therefore an efficient allocation of resources.

▲ **Figure 7** *Converting land for hotel construction involves sacrificing the previous land use*

Points beyond a production possibility curve

It is not possible to reach a point beyond a production possibility curve at a given moment in time because it is constrained by the quantity and quality of economic resources available to be used at that time.



▲ **Figure 8** *The location of possible production points*

Exam tip

You need to make it clear that any points on the production possibility curve indicate that all resources are being used efficiently.

You need to make it clear that any points under or inside the production possibility curve indicate that there are some unemployed resources and/or that there is an inefficient use of resources.

You need to make it clear that any points beyond a production possibility curve are impossible to achieve because the economy has insufficient resources to produce this combination of products. In order for it to reach this position, there needs to be an increase in the productive potential of the available resources through an increase in the efficiency with which the existing resources are used.

Recap

- Points that lie under a production possibility curve show an inefficient use of existing resources compared with what is possible.
- Points that lie on a production possibility curve show an efficient use of existing resources.
- Points that lie beyond a production possibility curve are unattainable at present given the existing quantity and quality of resources.

Explain why some production points may exist under a production possibility curve.

1.4.3 Movements along a production possibility curve

The concept of opportunity cost can be illustrated by a movement along a production possibility curve. Figure 9 shows the opportunity cost of converting agricultural land to tourism. More of the land is to be used for hotel and leisure activities, shown by the distance between T1 and T2 on the vertical axis. There will be an opportunity cost to this reallocation of land. The reduction in agricultural output is shown by the distance between A1 and A2 on the horizontal axis.

Activity

Draw a production possibility curve and use it to illustrate the concept of opportunity cost.

Recap

- The concept of opportunity cost can be illustrated by a movement along a production possibility curve.
- This can be seen in terms of the sacrifice in the quantity of one good produced when resources are reallocated to the production of an alternative good.

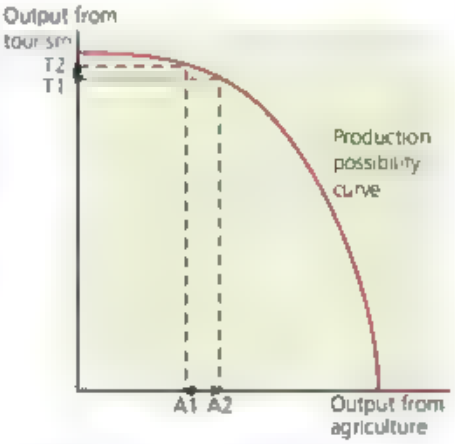
Exam tip

It is important to clearly understand the difference between the following. **A movement along a production possibility curve** shows the different combinations of two goods that can be produced from the given resources of an economy. **A shift of a production possibility curve**, however, shows an expansion of the productive potential or capacity of an economy, making it possible to produce more of both goods.

You need to be able to explain why a shift to the right is advantageous for an economy and why a shift to the left is not.

Exam tip

A production possibility curve is an excellent way of demonstrating how the concept of opportunity cost can be applied to two products.



▲ **Figure 9** *Opportunity cost demonstrated on a production possibility curve*

Link

A production possibility curve can be used to illustrate the concept of opportunity cost when resources in an economy are reallocated from one use to another. We looked at opportunity cost in section 1.3.1. Shifts in a production possibility curve are covered in section 1.4.4.

1.4.4 Shifts in a production possibility curve

A shift to the right in a production possibility curve

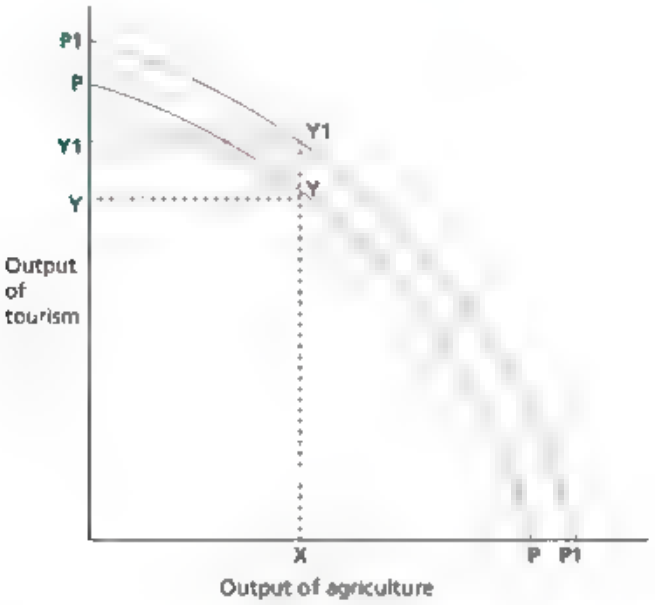
It has already been pointed out that it is impossible to reach a production point beyond a production possibility curve at a given time with a given quantity and quality of economic resources. However, over time, there may be an increase in the quantity and/or quality of resources in an economy (see section 1.2.3).

If this increase in the quantity and quality of resources leads to greater efficiency in an economy, it will be possible to increase the level of output of both goods shown on a production possibility curve, that is, there will no longer be an opportunity cost of producing more of one good because it will now be possible to produce more of both goods.

Figure 10 shows an outward shift of an economy's production possibility curve, that is, it moves to the right from PP to P1P1. It is now possible to increase output of tourism from Y to Y1 without reducing the output of agriculture. It would also be possible to increase the output of both tourism and agriculture.

A shift to the left of a production possibility curve

The consequence of such a shift to the right of an economy's production possibility curve will be economic growth. This means that the economy will be able to increase its output. However, it is possible that there could be a shift to the left of an economy's production possibility curve when there is a decrease in the quantity and/or quality of the economic resources. This would be shown by a leftward shift of the production possibility curve from P1P1 to PP in Figure 10



▲ **Figure 10** *A shift to the right of a production possibility curve*

The consequence of such a shift to the left of an economy's production possibility curve will be negative economic growth. This means that there will be a decrease in the economy's output.

A shift of an economy's production possibility curve to the right comes about as a result in the quantity and/or quality of factors of production available to be used in the production process. See section 1.2.3 for more on the quantity and quality of factors of production.

- A shift in a production possibility curve will represent increased efficiency when the shift is outwards to the right.
- A shift in a production possibility curve will represent decreased efficiency when the shift is inwards to the left

1. Distinguish between a movement along a production possibility curve and a shift of a production possibility curve
2. Explain what could cause a shift to the right of an economy's production possibility curve

Exam-style question 1

a. Define the term 'economic problem'. **[2]**

b. Explain the difference between an economic good and a free good. **[4]**

c. Analyse the key features of the factor of production enterprise. **[6]**

d. Discuss whether education alone will improve the quality of labour in an economy. **[8]**

Analysis

✓ In (a), you will need to refer to the existence of **both** finite resources and unlimited wants.

✓ In (b), you will need to not just state the difference between economic goods and free goods, but fully explain the difference, that is, you need to support your answer with relevant evidence.

✓ In (c), you will need to analyse and not simply describe the key features of enterprise, that is, you need to examine in detail the relationship between them.

✓ In (d), you will need to discuss the contribution of education to the quality of labour, taking into account the role that it can play, but also considering what other factors could improve the quality of labour in an economy. A one-sided answer that only looks at one perspective can get no more than five marks.

Mark scheme

a. One mark for reference to finite resources, one mark for reference to unlimited wants. **[2]**

b. One mark for reference to scarcity in relation to economic goods, one mark for reference to the cost or price of an economic good; one mark for reference to the absence of a sacrifice in relation to free goods; one mark for reference to the supply of a free good at zero cost. **[4]**

c. Up to two marks for an analysis of enterprise involving the coordination of other factors of production. Up to two marks for an analysis of enterprise having certain objectives, such as making a profit. Up to two marks for an analysis of the link between the aim of making a profit and the taking of a risk. **[6]**

d. Up to five marks for a consideration of the importance of education in improving the quality of labour, for example, in terms of knowledge and qualifications. Up to five marks for a consideration of other possible influences, such as training, skills, experience and capital equipment. **[8]**

Student answer

(a) The economic problem comes about because there are unlimited wants in an economy. This means that the wants of people are infinite. [1 mark]

(b) An economic good is one that is scarce, such as a car. A free good is one that is plentiful, such as air. [2 marks]

(c) Enterprise refers to the bringing together of the other three factors of production, namely land, labour and capital. Production is then organised by the entrepreneur to achieve certain objectives, such as making a profit. [3 marks]

(d) Education is very important in helping to improve the quality of education in an economy. A well-educated workforce is likely to be more efficient and productive. The longer people stay in education, the more they will be able to contribute to an economy because as they stay in education longer, they are able to obtain more qualifications at a higher level. [3 marks]

Total mark: 9/20

Examiner feedback

a. The candidate has referred to unlimited or infinite wants, but has made no reference to the existence of finite or limited resources to meet those wants.

b. The candidate has referred to an economic good being scarce and has given an appropriate example of one, but the meaning of scarce needed to be explained more fully, for example, scarce in relation to the demand for it. The candidate could also have brought in the idea of choice and the idea of a price having to be paid to obtain an economic good. The candidate has also referred to a free good being plentiful and has given an appropriate example of one. However, the explanation could have been developed more fully by referring to the absence of choice and sacrifice and by stressing that they are provided at zero cost.

c. The candidate has referred to the important feature of enterprise in bringing together the other three factors of production and has brought in the idea of an entrepreneur having certain objectives such as making a profit, but there is no reference at all to the key feature of risk taking.

d. The candidate has made a link between education, efficiency and productivity and has made a useful comment on qualification, but it is entirely one-sided therefore the maximum possible mark is five. There is no reference to influences other than education such as training or the quality of the capital equipment that a person is working with.

Exam-style question 2

a. Define the term 'opportunity cost'. [2]

b. Explain the implications of some production points being under a production possibility curve. [4]

c. Analyse the relationship between opportunity cost and a movement along a production possibility curve. [6]

d. Discuss whether a shift in an economy's production curve is always advantageous. [8]

Analysis

✓ In (a), you will need to make it clear that it is the next best alternative that is sacrificed as a result of taking a decision, not just any alternative.

✓ In (b), you will need to point out that points under a production possibility curve are due to unemployment, giving rise to an inefficient allocation of resources.

✓ In (c), you will need to clearly analyse why the production of more units of one good will lead to the production of fewer units of another good.

✓ In (d), you will need to not only discuss the advantageous nature of a shift of a country's production possibility curve to the right, but also the negative consequences of a shift of the production possibility curve to the left.

Mark scheme

a. One mark for reference to the idea of a sacrifice that is made as a result of taking a decision, one mark for the fact that it is the next best alternative that is given up when a choice is made. [2]

b. One mark for making it clear that if the points are under a production possibility curve, the level of output that can be produced is lower than would otherwise be the case; one mark for developing this in terms of resources not being used to their full potential, one mark for pointing out that some resources will be unemployed; one mark for explaining that there will therefore be an inefficient allocation of resources. [4]

c. Up to three marks for an analysis of a movement along a production possibility curve. Up to three marks for analysing what this means in terms of opportunity cost. [6]

d. Up to five marks for a consideration of the advantages of a shift of a production possibility curve to the right. Up to five marks for a consideration of the negative consequences of a shift of a production possibility curve to the left. [8]

Student answer

(a) Opportunity cost is the consequence of making a choice between two alternatives. [1 mark]

(b) Whenever production takes place under a production possibility curve, this means that some of the economic resources are unemployed and so output is less than it might otherwise be. [2 marks]

(c) A production possibility curve shows what can be produced from a country's resources at a given time. A movement along a production possibility curve shows that if more of one good is produced, then less of another good can be produced. Production decisions therefore show that when a choice is made about how scarce resources are allocated, there is a sacrifice involved. This sacrifice is called the opportunity cost of taking the decision. [3 marks]

(d) Whenever there is an increase in the quantity and/or quality of the factors of production used in the production process, it becomes possible to produce more of both goods shown on a production possibility curve. In other words, there is no longer necessarily an opportunity cost involved. This is shown by a rightward shift of the production possibility curve. This indicates an increase in the productive potential or capacity of an economy and if there is an increase in output, this can be referred to as economic growth. [4 marks]

Total mark: 10/20

Examiner feedback

a. The candidate has expressed the idea that opportunity cost has something to do with making a choice between alternatives, but the definition needs to be more precise in terms of the next best alternative that is sacrificed as a result of making a choice.

b. The candidate has made reference to the fact that some of the economic resources are unemployed and that this will lead to a lower level of output than could possibly be achieved. However the explanation could have been developed more fully, such as in terms of the inefficient allocation of resources and the fact that the economy was not reaching its maximum potential.

c. The candidate has clearly explained what a production possibility curve shows and has developed this to offer an analysis in relation to choice and sacrifice. However the answer could have been developed more fully, such as contrasting the situation of a straight-line production possibility curve with that of a curved production possibility curve.

d. The candidate has provided quite a useful consideration of a rightward shift of a production possibility curve, pointing out that this means that opportunity cost is no longer involved as it is possible to produce more of both goods. The references to productive potential, productive capacity and economic growth are helpful, but the answer is entirely focused on the rightward shift of a production possibility curve. There is nothing about the negative implications of a leftward shift, therefore the maximum mark that could have been awarded to the answer is five.

Exam-style question 3

a. Define, using an example, the factor of production capital. **[2]**

b. Explain how the quantity and quality of the factor of production land could be increased. **[4]**

c. Analyse why decisions made by workers involve an opportunity cost. **[6]**

d. Discuss whether incentives will always lead to an improvement in the mobility of factors of production. **[8]**

Analysis

✓ In (a), you will need to clearly define the factor of production capital with reference to human-made aids to production, not money, and remember to include an appropriate example of the factor.

✓ In (b), you will need to explain how **both** the quantity and quality of the factor of production land could be increased.

✓ In (c), you will need to analyse and not simply describe why decisions made by workers involve an opportunity cost. In your analysis, you will need to define the term 'opportunity cost'.

✓ In (d), in discussing whether incentives will always lead to an improvement in the mobility of factors of production, you will need to consider certain situations when this may not happen.

Mark scheme

a. One mark for explaining that capital refers to those items used in the production process that are human-made aids to production. Examples include machines, tools, buildings and equipment for the second mark. **[2]**

b. Quantity: one mark for stating that this could be increased by reclaiming land from the sea; one mark for stating that it could also be increased by the development of new or additional resources, such as oil or natural gas. Quality: one mark for suggesting that this could be increased by the use of fertilisers; one mark for suggesting that it could also be increased by improving the use of crop rotation and/or improved irrigation systems. **[4]**

c. Up to two marks for the definition of opportunity cost. Up to two marks for the idea that if a worker decides to work extra hours, the opportunity cost is the next best alternative that is given up. Up to two marks for pointing out that this could be hours of leisure as opposed to hours of work. **[6]**

d. Up to five marks for consideration of the possibility that incentives could lead to an improvement in the geographical and occupational mobility of factors of production. (Both geographical and occupational mobility and all four factors of production need to be discussed for the maximum mark to be awarded.) Consideration of the possibility that incentives will not always lead to an improvement in the mobility of factors of production. (Again both geographical and occupational mobility and all four factors of production need to be discussed for the maximum mark to be awarded.) **[8]**

Student answer

(a) Capital can be defined as aids that are used in the production process. An example would be a particular piece of equipment, such as the use of robots in the mass production of cars.

[1 mark]

(b) Although land is often regarded as a relatively fixed factor of production, it could be increased by a project to reclaim land from the sea to make it available for productive use, as has been done in China and the Netherlands. Land can be regarded as the natural resources of a country, therefore it would be increased if new deposits of oil or natural gas were found. The quality of land can also be increased as well as the quantity, especially through the use of fertilisers to improve the productivity of agricultural land. [3 marks]

(c) Opportunity cost is the next best alternative that is foregone or sacrificed when a choice is made between different alternatives and a decision is taken in favour of one of these alternatives. This can be applied to a worker who is wondering whether to work extra hours in order to increase the wage received. Time has an opportunity cost therefore if a worker decides to work additional hours, the sacrifice is the reduced number of hours that can be given to leisure and social purposes. [4 marks]

(d) If incentives are given, such as financial incentives, this could lead to an improvement in the mobility of factors of production. For example, this could lead to an increase in the occupational mobility of land, although it would not have any effect on the geographical mobility of land. In terms of labour, incentives could be given to help pay for the cost of moving which could increase its geographical mobility and incentives could be given to help pay for the cost of education and training courses which could increase its occupational mobility. In terms of capital, incentives in the form of grants or tax allowances could help move equipment and machinery from one area to another, increasing its geographical mobility, and such incentives could help to make it more occupationally mobile. In terms of enterprise, incentives could entice entrepreneurs to move from one area to another, increasing geographical mobility, and might make them more willing to take a risk in starting up a new enterprise initiative, increasing its occupational mobility. However, such incentives will not necessarily always lead to an increase in the geographical or occupational mobility of factors of production. In relation to land, reclamation schemes and irrigation projects are very expensive and there may not be funds available to finance them. In relation to labour, some people may not want to move to other areas for personal and family reasons and some workers may not be able to learn the necessary skills needed to work in another occupation. In terms of capital, very large items of capital may be difficult to move to another area and it may not be possible to transfer all capital for use in another occupation. [7 marks]

Total mark: 15/20

Examiner feedback

a. The candidate has gained a mark for the example but not for the definition of capital. The answer should have referred to human-made aids to production.

b. The candidate has gained two marks for a good explanation in relation to quantity. However, the candidate has only gained one mark for the explanation of quality as the answer could have been developed more fully. For example, reference could also have been made to the fact that the quality of such land could also have been improved by a system of crop rotation and through an improved irrigation system. Both of these should help to make the land more fertile.

c. The candidate has gained two marks for the definition of opportunity cost and an additional two marks for an analysis of why decisions by workers involve an opportunity cost. The analysis of the trade-off between work and leisure could have been developed more fully.

d. The candidate has gained the maximum five marks as the answer referred to both geographical and occupational mobility and to all four factors of production. However, although the candidate has referred to the limitations of the incentives in relation to both the geographical and occupational mobility of land, labour and capital, there is no reference to enterprise. The candidate could have written that there may be inertia limiting the amount of movement from one area to another, or in terms of moving from one country to another, there may be citizenship and/or passport restrictions. There may also be limited occupational mobility because some entrepreneurs may be reluctant to move into another line of business with which they are less familiar. This part of the answer was given two marks, making seven marks in total.

Exam-style question 4

1. Define a production possibility curve. **[2]**
2. Explain why a production possibility curve is usually drawn as a curve rather than as a straight line. **[4]**
3. Analyse what may cause a production possibility curve to shift to the left. **[6]**
4. Discuss whether it is only an increase in the quantity of factors of production that can cause a production possibility curve to shift to the right. **[8]**

Analysis

✓ In (a), you will need to clearly define a production possibility curve to gain both marks.

✓ In (b), you will need to explain that a production possibility curve is usually drawn as a curve rather than as a straight line because of the existence of different opportunity costs when resources are reallocated between different uses.

✓ In (c), you will need to analyse what may cause a production possibility curve to move to the left, that is, a movement involving a less efficient use of resources.

✓ In (d), you will need to discuss the role of an increase in the quantity of factors of production in causing a production possibility curve to shift to the right and also the role of an increase in the quality of factors of production

Mark scheme

a. Up to two marks for the definition: a production possibility curve shows the combinations of two goods that can be produced in an economy at a particular time (one mark) using all the available resources and the available technology (one mark). **[2]**

b. One mark for explaining that if it was drawn as a straight line, this would indicate that all resources used in the production process were identical; one mark for pointing out that this is not always the case. A production possibility curve is therefore drawn as a curve because different units of a resource are not equally substitutable (one mark) so as the curve gets nearer to an axis, the resources will not be as efficient as other points along the curve (one mark). **[4]**

c. Up to two marks for explaining that a shift of a production possibility curve to the left indicates a reduction in efficiency. Up to four marks for possible reasons for reduced efficiency: it may be due to a reduced number of resources available for employment in the production process (up to two marks) or to a reduction in the quality of such resources (up to two marks). **[6]**

d. Up to five marks for consideration of an increase in the quantity of factors of production, such as an increase in the quantity of labour as a result of an increase in the birth rate, a decrease in the death rate, an increase in net migration or an increase in the retirement age. Up to five marks for consideration of an increase in the quality of factors of production, such as an improvement in the skills, education, training and qualifications of the workforce. Candidates should refer to all four factors of production to gain the maximum mark. **[8]**

Student answer

(a) A production possibility curve is a way of graphically showing what can be produced in an economy at a given time, with two goods shown on the two axes. The production possibility curve at that moment in time will be constrained by the quantity and quality of resources available for production and by the level of technology at that time. [2 marks]

(b) If all resources could be used in the production process at an equal level of efficiency, that is, if all resources could be used instead of others without any loss of efficiency, then a production possibility curve could be drawn as a straight line. However, this is rarely the case. For example, some land will be very productive when used for agricultural purposes, but as more and more land is used, the additional land is unlikely to be as productive as the land that was first used. In other words, different resources are not equally substitutable with each other. As the production possibility curve gets closer to the two axes, this will be apparent, giving rising to the curved shape of the production possibility curve. [4 marks]

(c) If a production possibility curve shifts to the left, showing that less of the two goods can be produced, this will be a reflection of a reduction in efficiency in the production process. This could be caused by a reduction in the quantity of resources available for production. [3 marks]

(d) An increase in the quantity of factors of production in an economy could cause a shift to the right of the production possibility curve. In terms of land, there could have been a project to reclaim some of the land from the sea. In terms of labour, there could be more people in a country leading to an increase in the labour force, for example, the birth rate could have gone up, the death rate could have gone down, the number of immigrants could be greater than the number of emigrants or there could have been an increase in the retirement age, meaning that workers would be employed for a longer period of time. In terms of enterprise, there could have been an increase in the number of entrepreneurs wanting to start up new enterprises, perhaps as a result of government initiatives to develop more of an enterprise culture in the economy. However, it is not only an increase in the quantity of factors of production that can lead to a rightward shift of a production possibility curve, but also the quality of the factors. In relation to land, the existing land could have been made more productive through the increased use of fertilisers. In relation to enterprise, entrepreneurs could have benefited from the provision of specific entrepreneurial courses. [6 marks]

Total mark: 15/20

Examiner's comments

a. The candidate has gained both marks for a clear definition.

b. The candidate has gained all four marks for a good explanation.

c. The candidate has only gained three marks for the analysis because although there is reference to a reduction in the quantity of resources, the answer needed to be developed more fully by including an analysis of a reduction in the quality of these resources as well, such as a reduction in their productivity. A shift to the left of a production possibility curve could be caused by either of these factors or by a combination of them.

d. The candidate has gained the maximum five marks for a discussion of the increase in the quantity of factors of production. However, the consideration of the increase in the quality of the factors of production only refers to land and enterprise. There is no discussion of quality in relation to labour or capital, so the mark awarded was six of the possible eight marks. In relation to labour, the candidate could have referred to the possibility of a government initiative to encourage education and training, leading to an increase in the skills and qualifications of workers. In relation to capital, there could have been reference to an improvement in the quality of capital through a variety of invention and innovation, leading to enhanced technological progress.

Unit 2:
The allocation of resources

Your exam

The allocation of resources is part of paper 1, multiple-choice questions, and paper 2, structured questions. Paper 1 is a 45-minute exam and makes up 30% of the total marks. Paper 2 is a 2 hour 15 minute exam and makes up 70% of the total marks.

Your revision checklist

Tick these boxes to build a record of your revision.

Specification	Theme	Tick	Tick	Tick
2.1 Microeconomics and macroeconomics	2.1.1 Microeconomics			
	2.1.2 Macroeconomics			
2.2 The role of markets in allocating resources	2.2.1 The market system			
	2.2.2 Key resource allocation decisions			
	2.2.3 Introduction to the price mechanism			
2.3 Demand	2.3.1 Definition of demand			
	2.3.2 Price and demand			
	2.3.3 Individual and market demand			
	2.3.4 Conditions of demand			
2.4 Supply	2.4.1 Definition of supply			
	2.4.2 Price and supply			
	2.4.3 Individual and market supply			
	2.4.4 Conditions of supply			
2.5 Price determination	2.5.1 Market equilibrium			
	2.5.2 Market disequilibrium			
2.6 Price changes	2.6.1 Causes and consequences of price changes			
2.7 Price elasticity of demand	2.7.1 Definition of price elasticity of demand			
	2.7.2 Calculation of price elasticity of demand			
	2.7.3 Determinants of price elasticity of demand			
	2.7.4 Price elasticity of demand and total spending on a product/revenue			
	2.7.5 Significance of price elasticity of demand			
2.8 Price elasticity of supply	2.8.1 Definition of price elasticity of supply			
	2.8.2 Calculation of price elasticity of supply			
	2.8.3 Determinants of price elasticity of supply			
	2.8.4 Significance of price elasticity of supply			
2.9 Market economic systems	2.9.1 Definition of market economic systems			
	2.9.2 Advantages and disadvantages of market economic systems			
2.10 Market failure	2.10.1 Definition of market failure			
	2.10.2 Causes of market failure			
	2.10.3 Consequences of market failure			
2.11 Mixed economic systems	2.11.1 Definition of mixed economic systems			
	2.11.2 Government intervention to address market failure			

You need to know:

- **the difference between microeconomics and macroeconomics and the decision makers involved in each**
- **the difference between macroeconomics and microeconomics and the decision makers involved in each**

2.1.1 Microeconomics

Microeconomics can be defined as the study of relatively small-scale units, markets and decisions taken by individuals within an economy.

Microeconomic decisions are made on a relatively small scale by the following **economic agents**:

Economic agent	Examples
A business or firm	An individual business or firm has a need to make economic choices and take economic decisions on a regular basis, e.g. which products to produce, how much to produce and what price to charge for these products.
An individual	An individual regularly takes important decisions, e.g. how much time to spend on leisure activities, whether or not to go into a particular shop and how long to spend there.
A consumer	A consumer has many economic choices to make, e.g. what to buy, where to buy from and when to buy.

Key terms

Microeconomics: economic decision making by relatively small scale units or by individuals

Economic agent: the individuals, groups or organisations that carry out economic activity and that take economic decisions

Recap

- Decisions taken in microeconomics are on a relatively small scale
- The main microeconomic decision makers are firms, individuals and consumers

Exam tip

Make sure that you are able to clearly distinguish between the different economic agents taking decisions in microeconomics and that you can give appropriate examples of decisions taken by each.

Activity

Identify some economic choices that you have made over the last three months.

Summary

Microeconomic decisions involve the making of economic choices. Choices involving scarcity are covered in section 1.1.1.

Key terms

Macroeconomics: economic decision making by relatively large-scale units or by groups of individuals

Aggregate: the total figure, such as the total spending by consumers in an economy in a year

▲ **Figure 11** *Central banks, such as the Reserve Bank of India, are important macroeconomic decision makers*

Recap

- Decisions taken in macroeconomics are on a relatively large scale
- The main macroeconomic decision makers are groups of producers or firms, groups of consumers, exporters and importers, the government, financial institutions, international government bodies and international non-government organisations.
- Macroeconomics is concerned with aggregates such as the total level of national output, income or expenditure

2.1.2 Macroeconomics

Macroeconomics can be defined as the study of relatively large-scale units markets and decisions taken by groups of individuals within an economy. Macroeconomics is concerned with **aggregate** decisions such as the total level of consumer spending or government spending over a period of time.

Macroeconomic decisions are made on a relatively large scale by the following economic agents:

Economic agent	Examples
Groups of consumers	The combined spending of these groups of consumers can be added (or aggregated) together to arrive at a figure for the total level of consumer spending in an economy over a period of time. This part of the macroeconomy is also referred to as household spending.
Groups of producers or firms	The businesses in an economy make many important decisions and the value of this production can be added (or aggregated) together to arrive at a figure for the total level of production or the total level of investment spending in an economy over a period of time.
Exporters and importers	The decisions taken by exporters and importers will impact not only on the national but also the international economy in terms of the value of exports leaving a country and the value of imports coming into a country.
Government	Decisions taken by a country's government will impact on all firms and households in an economy, such as decisions taken in relation to government spending, to the money received from taxation to pay for this spending and to the laws passed that create a legal framework in which economic activity in a country can take place.
Financial sector	Decisions will be taken by a variety of financial institutions in an economy, such as banks, that will affect the behaviour of producers and consumers. For example, decisions about interest rates will affect many people in an economy and these decisions are usually taken by the central bank, operating as the government's bank.
International government bodies and non-government organisations	Decisions can be taken by a number of international organisations affecting many countries in the world, such as those taken by the World Trade Organisation (WTO) or the International Monetary Fund (IMF).

Test yourself

1. Explain, with the use of examples, the distinction between microeconomics and macroeconomics.
2. Which of the following is an example of microeconomics? Decisions taken by:
   a. a consumer
   b. a government
   c. groups of producers
   d. the financial sector

You need to know:

- **how a market system works, including buyers and sellers, the allocation of scarce resources, market equilibrium and market disequilibrium**
- **the economic problem creates three key questions about determining resource allocation – what to produce, how to produce and for whom to produce**
- **how the price mechanism provides answers to the three key allocation questions**

2.2.1 The market system

How a market system works

A **market** can refer to any situation where **buyers** (or **consumers**) and **sellers** (or **suppliers**) of a product are brought together. This could mean a traditional market, located in a particular place to sell a product, for example, fruit and vegetables, or it could mean an alternative market where buyers and sellers are in contact with each other, such as over the telephone or on the internet.

Allocation of scarce resources

In a market, the allocation of scarce resources operates through **market signals**. In any economy, there will be scarce economic resources in the form of factors of production, that is, land, labour, capital and enterprise. The allocation of these resources responds to market signals in the form of higher or lower prices. For example, if more buyers want particular products, the price of these products will go up; this will act as a signal to the sellers to allocate more resources to their production. On the other hand, if fewer buyers want particular products, the price of these products will go down and sellers will allocate fewer resources to their production.

Key terms

Market: a market refers to any situation where buyers and sellers of a product are brought together

Consumers: those people who are able and willing to buy products (also known as **buyers**)

Suppliers: those people who are able and willing to sell products (also known as **sellers**)

Market signals: indications that more or less of a product is wanted by buyers through higher or lower prices

▲ **Figure 12** *Prices of fresh vegetables at Soroti fruit and vegetable market in Uganda are influenced by supply factors such as transport delays and drought*

Exam tip

Make sure you understand that a market can refer to a physical place, such as a traditional street market, or to any form of contact between buyers and sellers, such as over the telephone or on the internet.

Key terms

Market equilibrium: a state where there is no tendency to change

Market disequilibrium: a state where there is a tendency to change

Market equilibrium

The term **equilibrium** refers to a state where there is no tendency to change. In this state the demand for products is equal to the supply of products at a given time.

Market disequilibrium

The term **disequilibrium** refers to a state where there is a tendency to change. In this state of change the demand for products is not equal to the supply of products at a given time. Changes in market forces will lead to a rise or a fall in the price of products.

These changes in market forces can come from two sides.

- Buyer or consumer changes: tastes and fashions could change, meaning that more of one product is wanted and less of another. Incomes could change, meaning that if incomes rise, people will be able to afford more products.
- Seller or supplier changes: the weather could change, making it easier or harder to produce products such as fruit and vegetables. The development and application of new technology could increase the efficiency of producers, so that more could be made from a given number, or even fewer, resource inputs.

When a market is in disequilibrium, prices will change. These price changes will act as market signals, as has already been pointed out, and the scarce resources will be reallocated until demand is again equal to supply and equilibrium is then restored to the market.

Exam tip

Remember that markets are continually changing from a state of equilibrium to one of disequilibrium and back to one of equilibrium. Changes in prices in a market act as signals and this leads to the economic resources being reallocated to different uses.

Summary

- A market consists of buyers (consumers) and sellers (suppliers).
- Changes in prices act as market signals communicating the wishes of consumers to suppliers.
- A market is more likely to be in a state of disequilibrium than a state of equilibrium because demand and supply conditions are continually changing.

Questions

1. Study a street market in your city, town or village. What is being bought and sold? Who are the buyers and sellers? Are the prices changing?
2. Explain how a market can move from a state of equilibrium to a state of disequilibrium and back to a state of equilibrium.

Connections

Markets involve the allocation of scarce resources or factors of production (see section 1.2). Changes in markets come about through changes in demand and supply (see sections 2.3 and 2.4). These changes bring about increases or decreases in prices (see sections 2.5 and 2.6). There is a case study of a fruit and vegetable market in Uganda on page 24 of the Student Book.

2.2.2 Key resource allocation decisions

The three key questions

The economic problem creates three key questions about determining resource allocation:

- what to produce?
- how to produce?
- for whom to produce?

These three questions about determining resource allocation are the result of the basic economic problem of unlimited wants exceeding limited resources.

What to produce?	Decisions need to be taken about how an economy's resources are to be allocated. For example, how many resources should be devoted to education, how many to health care and how many to defence?
How to produce?	Decisions need to be taken about how the products are to be produced. For example, is the production process going to use a relatively high proportion of labour relative to capital (this is known as **labour-intensive production**) or is the production process going to use a relatively high proportion of capital relative to labour (this is known as **capital-intensive production**)?
For whom to produce?	Decisions need to be taken about how the products produced are going to be distributed to people. For example, will the products be distributed according to need or according to income and the ability to pay?

Key terms

Labour-intensive production: a production process that uses a relatively high proportion of labour

Capital-intensive production: a production process that uses a relatively high proportion of capital

Recap

- Decisions about resource allocation in an economy come about because of the basic economic problem of unlimited wants exceeding limited resources.
- The three key questions are: what to produce; how to produce; for whom to produce.

Activity

1. Explain how the basic economic problem leads to decisions being taken about the allocation of scarce resources in an economy.
2. State, with the use of examples, the three key questions.

Link

The three allocation questions come about as the result of the basic economic problem (see section 1.1). Section 2.2.3 explains how the price mechanism provides answers to these three key allocation questions. The questions are answered in different ways in different economic systems (see sections 2.9 and 2.11).

2.2.3 Introduction to the price mechanism

The price mechanism

Market signals (see section 2.2.1) operate through what economist Adam Smith describes as an 'invisible hand'. He stresses that if consumers and suppliers are allowed to decide what to buy and what to sell, prices will settle at a level that benefits both buyers and sellers.

Price mechanism: the way in which decisions made by buyers and sellers in an economy interact to determine the allocation of scarce resources

The **price mechanism** is the way in which the three key allocation questions of what to produce, how to produce and for whom to produce are answered. This price mechanism refers to the way in which decisions made by buyers and sellers in an economy interact to determine the allocation of scarce resources. Resources in an economy are moved or reallocated as a result of price changes, and these price changes are the result of the interaction of the market forces of demand and supply. For example, resources are moved away from those products that are less popular and moved towards those products that are more popular.

Recap

- In a market, buyers and sellers interact and this determines how scarce resources are allocated
- Prices act as signals to buyers and sellers.
- The price mechanism is the way in which buyers and sellers interact.

Activity

Explain how scarce resources are allocated in a market.

Connections

The idea of market signals is covered in section 2.1.1 and the three key allocation questions are covered in section 2.2.2. The price mechanism is covered in more detail in sections 2.5 and 2.6.

You need to know:

- **the definition of demand, and the drawing and interpretation of appropriate diagrams**
- **how a demand curve is drawn and used to illustrate movements along a demand curve with appropriate terminology, for example, extensions and contractions in demand**
- **the link between individual and market demand in terms of aggregation**
- **the causes of shifts in a demand curve with appropriate terminology, for example, increase and decrease in demand**

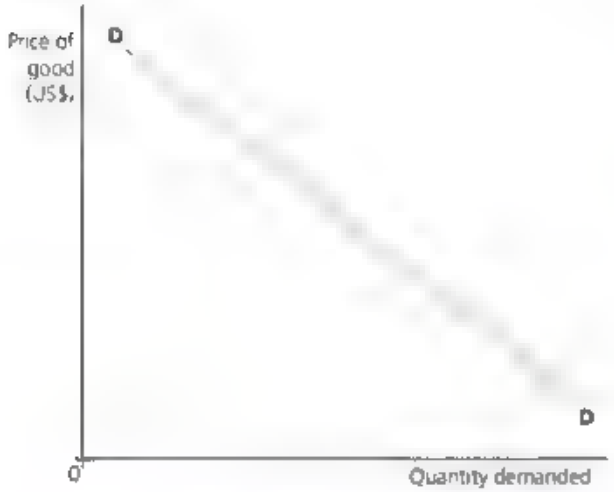
2.3.1 Definition of demand

The definition of **demand** relates to what is termed 'effective demand'. Demand is defined as the willingness and ability to buy a product at a given price at a given period of time. The idea of effective demand stresses that it is not just simply that people would like to buy a particular good or service. This want needs to be supported by the money to purchase the good or service.

Demand: the willingness and ability to buy a product at a given price at a given period of time

A demand curve can be drawn to show how many items of a product are wanted at given prices. The price is shown on the vertical axis and the quantity is shown on the horizontal axis. The demand curve is usually shown as a downward sloping line from left to right, showing that higher prices lead to lower quantities being bought and that lower prices lead to higher quantities being bought.

A typical downward sloping demand curve is shown in Figure 13.



▲ **Figure 13** *Straight-line demand curve*

▲ **Figure 14** *The lower the price of roasted nuts sold from this stall, the higher the demand for them will be*

- Effective demand is a want or need backed up by the ability to make a purchase of a product.
- A demand curve usually slopes downward from left to right.
- Although it is termed a demand curve, it is usually drawn as a straight line.
- At lower prices, greater quantities are likely to be demanded than at higher prices.

Exam tip

When you draw diagrams in the exam, make sure that they are accurately and clearly drawn and correctly labelled.

Common error

A number of candidates do not label the two axes or, if they do, they label them incorrectly, with the vertical axis labelled 'quantity' and the horizontal axis labelled 'price' instead of the other way around

Key term

Ceteris paribus: the idea that all other possible influences are held constant. It is a Latin term that literally means other things being equal

Contraction in demand: a fall in the quantity demanded of a product caused by a rise in the price of the product

Extension in demand: a rise in the quantity demanded of a product caused by a fall in the price of the product

Common error

Candidates sometimes describe a contraction in demand in relation to a fall in the price of a product and an extension in demand in relation to a rise in the price of a product, rather than the other way around

Skills

How to draw a demand curve diagram is covered in section 2.3.1

Apply

1. Explain what is meant by effective demand
2. Analyse why a demand curve is usually downward sloping from left to right.

2.3.2 Price and demand

Movements along a demand curve

A demand curve shows the relationship between demand and price, if all other factors remain the same. It is important that all other possible influences on demand, apart from changes in price, are assumed to be held constant so that the influence of price on demand can be isolated from all other possible influences. This idea of all things remaining constant is referred to as a situation of **ceteris paribus**

Extensions and contractions in demand

When the price of a product changes, there will be a movement along a demand curve. If there is a rise in the price of a product, there will be a movement up the demand curve and a fall in the quantity demanded. This is known as a **contraction in demand**

If there is a fall in the price of a product, there will be a movement down the demand curve and a rise in the quantity demanded. This is known as an **extension in demand**

Recap

- Movements along a demand curve result from changes in price only.
- All other possible influences are assumed to be held constant.
- A contraction in demand is when there is a movement up a demand curve as a result of a rise in the price of a product, leading to a decrease in the quantity demanded
- An extension in demand is when there is a movement down a demand curve as a result of a fall in the price of a product, leading to an increase in the quantity demanded

Apply

1. Explain what causes a movement along a demand curve for a product
2. Distinguish between an extension in demand and a contraction in demand for a product.
3. Which of the following could cause an extension in demand?
   a. A fall in income
   b. A fall in price
   c. A rise in income
   d. A rise in price

2.3.3 Individual and market demand

It is possible to produce an **individual demand** schedule for a particular product. This shows how many items of a product a person would be willing and able to buy at different prices. However, this is not very useful as a market is made up of many individuals.

It is better to produce a demand schedule for many individuals. This would give a better idea of the level of **market demand** for a particular product at different prices. In order to arrive at this market demand schedule, the demand of each individual can be added together. This process of adding together the demand of a number of individuals in a market is known as **aggregation**.

Key terms

Individual demand: the demand for a product at different prices by a particular individual

Market demand: the demand for a product at different prices by a number of individuals

Aggregation: the process of adding together data

Recap

- Individual demand is the demand for a product at different prices by a particular individual
- Market demand is the demand for a product at different prices by a number of individuals.
- The process of collecting data from different individuals and putting it together to show the level of market demand for a product at different prices is known as aggregation

Activity

1. Collect data from the people in your class on the demand for a product at different prices and then add (or aggregate) the data to produce the demand for the product of the whole class
2. Distinguish between individual and market demand
3. Explain, using an example, what is meant by aggregation

Extension

There is a case study on the distinction between individual demand and market demand on page 29 of the Student Book. The calculation of the total figure in the final column of the table will give you a good idea of what is meant by aggregation

2.3.4 Conditions of demand

Conditions of demand: the factors that can cause a change in the demand for a product, other than price

Disposable income: the amount of income that people have to spend on goods and services

Normal goods: goods that experience an increase in demand when incomes rise

Inferior goods: goods that experience a decrease in demand when incomes rise

Substitute goods: products that are possible alternatives to each other

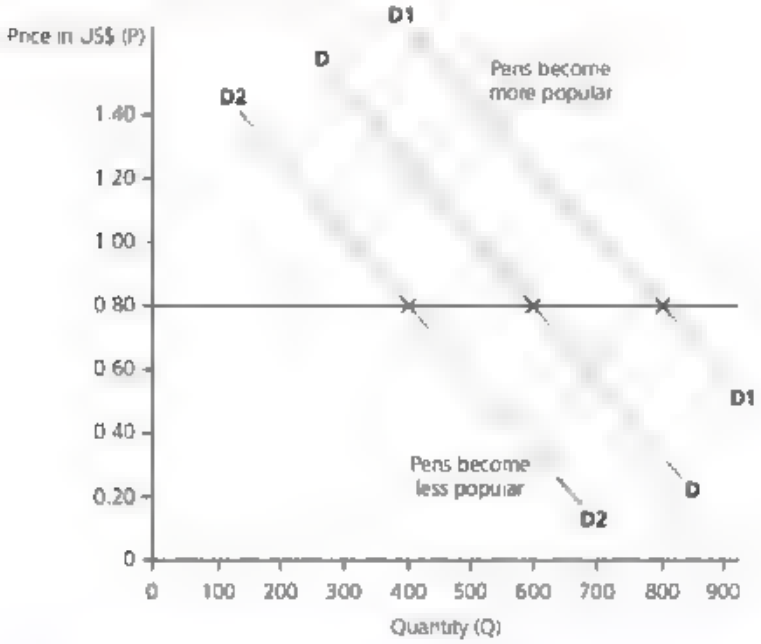
Complementary goods: products that are consumed together

Section 2.3.2 showed that a movement along a demand curve is caused by changes in price only, with all other possible influences held constant. However, such a situation is rather unlikely in the real world as the demand for a product can be influenced by factors other than the price of a product. If one of these factors, other than price, changes in a market, the **conditions of demand** are said to have changed. In this situation, there will be a shift in a demand curve, either to the right or to the left.

The factors that can influence the demand for a product, other than price, include the following.

Factor	Explanation
Popularity	Consumer tastes and preferences change over time, increasing the popularity of some products and reducing the popularity of others. These changes can be influenced by advertising campaigns. If there is an increase in popularity for a product, the demand curve will shift to the right.
Income	Income changes can affect the demand for a product because if incomes increase, people will be better able to afford to buy the products they need and want. The amount of income that people have to spend on goods and services is known as their **disposable income**. Not all income is available to spend. For example, some money may have been taken away by the government in the form of taxation. An increase in income usually leads to an increase in the demand for products and, in this case, they are known as **normal goods**. However, in some cases, an increase in income could lead to a decrease in demand for products and, in this case, they are known as **inferior goods**. With normal goods, an increase in income will shift the demand curve to the right. With inferior goods, an increase in income will shift the demand curve to the left.
Age distribution	Changes in the age distribution of the population of a country can have an effect on demand. If a country has an ageing population, that is, the average age of the people is increasing, there will be an increase in demand for those goods needed by old people, shifting the demand curve to the right, and a decrease in demand for those goods wanted by young people, shifting the demand curve to the left.
Price of substitutes	The demand for products that have close substitutes will be strongly influenced by changes in the prices of these products. If a **substitute good** rises in price, the demand for the other product is likely to increase, shifting the demand curve to the right. If a substitute good falls in price, the demand for the other product is likely to decrease, shifting the demand curve to the left.
Price of complements	Products that are used together are known as **complementary goods** – the demand for one is linked to the price of the other. If a complement rises in price, the demand for the other product is likely to decrease, shifting the demand curve to the left. If a complement falls in price, the demand for the other product is likely to increase, shifting the demand curve to the right.

Figure 15 shows how the demand curve for highlighter pens can shift either to the right or to the left. If there is an increase in demand for the pens, there will be a shift of the demand curve to the right, from DD to D1D1. If there is a decrease in demand for the pens, there will be a shift of the demand curve to the left, from DD to D2D2.



▲ **Figure 15** *A demand curve can shift to the right or to the left when there is a change in the conditions of demand*

Exam tip

Make sure that you understand what causes a shift in a demand curve to the right, leading to an increase in demand, and what causes a shift in a demand curve to the left, leading to a decrease in demand.

Recap

- Shifts in a demand curve result from factors other than changes in price.
- These shifts come about as a result of changes in the conditions of demand.
- These changes in conditions of demand can be because of changes in popularity, income, age distribution, the price of substitutes and the price of complements.

Common error

Some candidates confuse a movement along a demand curve with a shift of a demand curve. A movement along a demand curve can only be caused by a change in the price of a product. Any other influence on demand, apart from price, will cause a demand curve to shift, either to the right or to the left.

Activity

1. Distinguish between income and disposable income.
2. Distinguish, using an example of each, between the effect of an increase in income on the demand for normal goods and for inferior goods.
3. Explain, using examples of each, the difference between a substitute and a complement.
4. Which of the following could cause a demand curve to shift to the left?
   - **a.** Fall in income
   - **b.** Fall in price
   - **c.** Fall in the price of complements
   - **d.** Successful advertising campaign

You need to know:

- the definition of supply, and the drawing and interpretation of appropriate diagrams
- how a supply curve is drawn and used to illustrate movements along a supply curve with appropriate terminology, for example, extension and contractions in supply
- the link between individual and market supply in terms of aggregation
- the causes of shifts in a supply curve with appropriate terminology, for example, increase and decrease in supply

2.4.1 Definition of supply

Supply is defined as the quantity of a product that producers are able and willing to sell at a given price in a given period of time

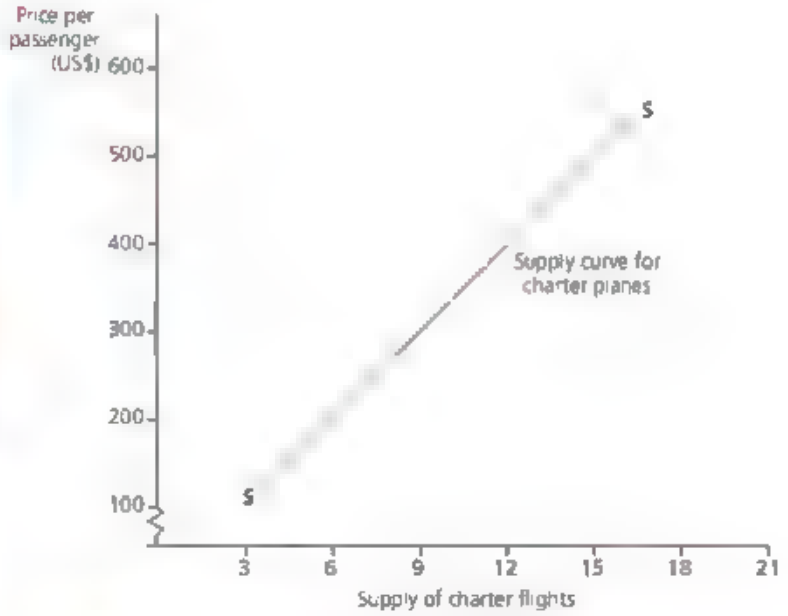
Key term

Supply: the quantity of a product that producers are able and willing to sell at a given price in a given period of time

A supply curve can be drawn to show how many items of a product will be supplied at given prices. The price is shown on the vertical axis and the quantity is shown on the horizontal axis. The supply curve is usually shown as an upward sloping line from left to right, showing that higher prices lead to higher quantities being supplied and that lower prices lead to lower quantities being supplied

A typical upward sloping supply curve is shown in Figure 17

▲ **Figure 16** *The higher the price an airline can charge people wishing to fly, the greater the number of flights it will be willing to supply*



▲ **Figure 17** *A supply curve*

Activity

Describe the relationship between the quantity supplied of a product and its price

Checkpoint

Supply is covered on pages 32–33 of the Student Book

2.4.2 Price and supply

A supply curve shows the relationship between supply and price, if all other factors remain the same. It is important that all other possible influences on supply, apart from changes in price, are assumed to be constant so that the influence of price on supply can be isolated from all other possible influences.

When the price of a product changes, there will be a movement along a supply curve. If there is a rise in the price of a product, there will be a movement up the supply curve and a rise in the quantity supplied. This is known as an **extension in supply**.

If there is a fall in the price of a product, there will be a movement down the supply curve and a fall in the quantity supplied. This is known as a **contraction in supply**.

Key Terms

Extension in supply: a rise in the quantity supplied of a product caused by a rise in its price

Contraction in supply: a fall in the quantity supplied of a product caused by a fall in its price

Summary

- Movements along a supply curve result from changes in price only.
- All other possible influences are assumed to be constant.
- A contraction in supply is when there is a movement down a supply curve as a result of a fall in the price of a product, leading to a decrease in the quantity supplied.
- An extension in supply is when there is a movement up a supply curve as a result of a rise in the price of a product, leading to an increase in the quantity supplied.

Questions

1. Explain what causes a movement along a supply curve for a product.
2. Distinguish between an extension in supply and a contraction in supply for a product.

Activity

Section 2.4.1 looks at how to draw a supply curve diagram.

2.4.3 Individual and market supply

Individual supply: the supply of a product at different prices by a particular firm

Market supply: the supply of a product at different prices by a number of firms

It is possible to produce an **individual supply** schedule for a particular product. This shows how many items of a product a producer is willing and able to sell at different prices. However, this is not be very useful as a market is often made up of many firms.

It is better to produce a supply schedule for many producers. This gives a better idea of the level of **market supply** for a particular product at different prices. In order to arrive at this market supply schedule, the supply of each individual firm can be added together. This process of adding together the supply of a number of firms in a market is known as aggregation.

Exam tip

You need to be able to clearly distinguish between individual supply and market supply and to show how market supply can be aggregated from data from a number of different firms.

- Individual supply is the supply of a product at different prices by a particular producer.
- Market supply is the supply of a product at different prices by a number of firms.
- The process of collecting data from different producers and putting it together to show the level of market supply of a product at different prices is known as aggregation.

Distinguish between individual and market supply

There is a case study on the distinction between individual supply and market supply on pages 32–33 of the Student Book. The calculation of the market supply figure in the final column of the table will give you a good idea of what is meant by aggregation.

2.4.4 Conditions of supply

Shifts in a supply curve

In section 2.4.2 it was shown that a movement along a supply curve is caused by changes in price only, with all other possible influences constant. However, such a situation is rather unlikely in the real world as the supply of a product can be influenced by factors other than the price of a product. If one of these other factors changes in a market, the **conditions of supply** are said to have changed. In this situation, there will be a shift in a supply curve, either to the right or to the left.

Changes in the conditions of supply

The factors that can influence the supply of a product, other than price, include the following.

Factor	Explanation
Changes in production costs	Rising or falling production costs can cause changes in the conditions of supply. A fall in production costs, e.g. as a result of a reduction in the prices of resources used in production or the development and application of new technology, will lead to a shift of a supply curve to the right. A rise in production costs, e.g. as a result of an increase in the prices of resources used in production, will lead to a shift of a supply curve to the left.
Changes in physical conditions	Changes in the weather, the quality of soil and natural disasters, such as flooding or drought, can have a large effect on supply, especially in relation to the production of agricultural products. Favourable changes in physical conditions will cause a supply curve to shift to the right, whereas unfavourable changes will cause a supply curve to shift to the left.
Taxation	A **tax** imposed on producers by a government will increase the cost of production and shift a supply curve to the left.
Subsidies	A **subsidy** given to producers by a government will reduce the cost of production and shift a supply curve to the right.
Joint supply	Some production processes create more than one product, a situation known as **joint supply**. For example, oil leads to the by-product soap. An increase in the supply of oil will lead to an increase in the supply of soap, shifting the supply curve of soap to the right.

Key terms

Conditions of supply: the factors that can cause a change in the supply of a product, other than price

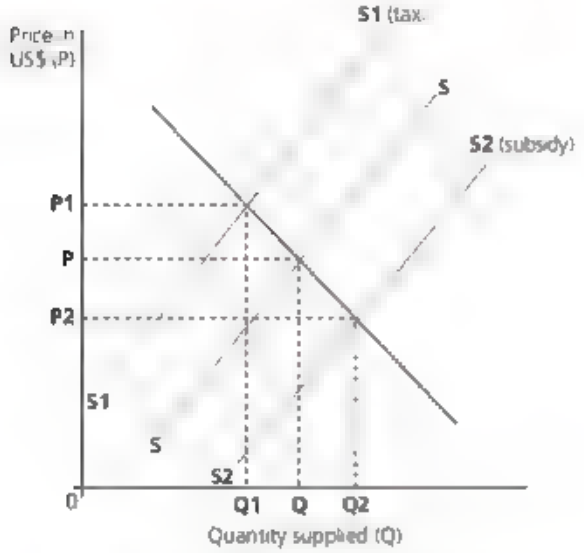
Tax: a compulsory payment that has to be made to a government

Subsidy: a payment made to producers by a government to keep down the cost of production

Joint supply: two or more goods that are produced as part of the same production process

▲ **Figure 18** *The use of robots in car factories reduces the costs of production, leading to a shift of the supply curve to the right.*

Figure 19 shows how the supply curve for a product can shift either to the left or to the right. If a tax is imposed on firms, there will be a shift to the left from SS to S1S1. If a subsidy is provided by the government, there will be a shift of the supply curve to the right from SS to S2S2.



▲ **Figure 19** *A supply curve can shift to the right or to the left when there is a change in the conditions of supply*

Exam tip

Make sure that you understand what causes a shift in a supply curve to the right, leading to an increase in supply, and what causes a shift in a supply curve to the left, leading to a decrease in supply.

- Shifts in a supply curve result from factors other than changes in price.
- The shifts come about as a result of changes in the conditions of supply.
- These changes in conditions of supply can be because of changes in production costs, changes in physical conditions, the impact of taxation or subsidies and the existence of joint supply.

Common error

Some candidates confuse a movement along a supply curve with a shift of a supply curve. A movement along a supply curve can only be caused by a change in the price of a product. Any other influence on supply, apart from price, will cause a supply curve to shift, either to the right or to the left.

1. Distinguish between those factors that will cause a supply curve to shift to the left and those factors that will cause a supply curve to shift to the right.
2. Which of the following could cause a supply curve to shift to the right?
   a. A favourable change in physical conditions
   b. A reduction in price
   c. An increase in production costs
   d. The imposition of an indirect tax

You need to know:

- the definition, drawing and interpretation of demand and supply schedules and curves used to establish equilibrium price and sales in a market
- the definition, drawing and interpretation of demand and supply schedules and curves used to identify disequilibrium prices and shortages (demand exceeding supply) and surpluses (supply exceeding demand)

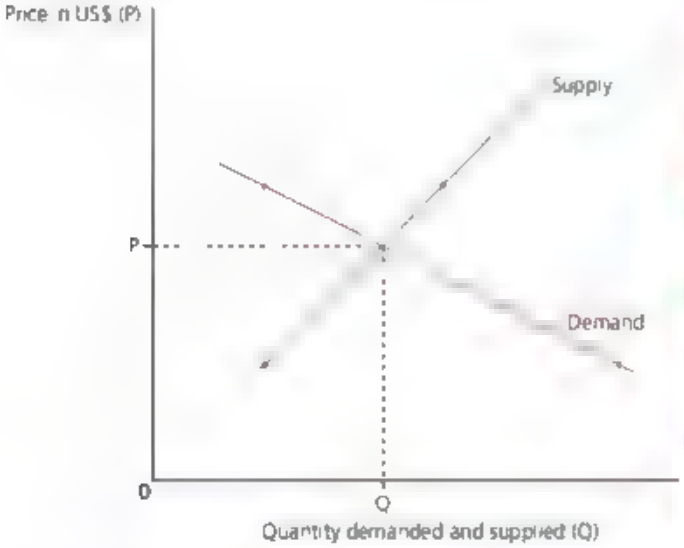
2.5.1 Market equilibrium

Market equilibrium is a state in which there is no tendency to change – it refers to a state of balance in a market. This balance will mean that demand is equal to supply, creating both an equilibrium price and an equilibrium quantity. This state of equilibrium in a market can be seen in Figure 20 where the equilibrium price is 0P and the equilibrium quantity is 0Q.

The equilibrium price in a market is often referred to as the **market clearing price**. This is because at this price the quantity demanded is equal to the quantity supplied so consumers and producers are happy with this price. No products will remain so this is called the market clearing price.

Key term

Market clearing price: the price at which the quantity supplied to a market is exactly equal to the quantity demanded in a market



▲ **Figure 20** *Market equilibrium*

▲ **Figure 21** *The price that the coconut seller charges is determined by the demand for, and the supply of, coconuts*

Recap

- The equilibrium price is also known as the market clearing price
- The market clearing price can be illustrated in a diagram by the intersection of the demand and supply curves

Apply

Explain what is meant by a market clearing price

Exam tip

The equilibrium position in a market is where demand and supply intersect. When you draw a diagram to illustrate this state of equilibrium, make sure that you clearly show the equilibrium price on the vertical axis and the equilibrium quantity on the horizontal axis.

Activity

The idea of market equilibrium is also covered in section 2.2.1. There are two practical examples of market equilibrium on pages 36–37 of the Student Book.

2.5.2 Market disequilibrium

Exam tip

In answering a question about a market moving from equilibrium to disequilibrium or from disequilibrium to equilibrium it will be helpful to include a demand and supply diagram to show what is happening in the market. If you include a demand and supply diagram, use arrows to show what is happening in the diagram.

The term 'market disequilibrium' refers to a state in which there is a tendency to change. In this state of change, the demand for products is not equal to the supply of products at a given time. Changes in market forces will lead to a rise or a fall in the price of products. It has already been shown in section 2.2.1 that a market is more likely to be in a state of disequilibrium than a state of equilibrium because demand and supply conditions are continually changing.

If a price in a market is above the equilibrium price, firms will not be able to sell all of the products they are trying to sell. In this situation, the disequilibrium is in the form of a **surplus** where supply exceeds demand. This is known as a situation of **excess supply**. In order for a state of equilibrium to be restored in this market, the price will need to fall until it is at a point where demand is equal to supply.

If a price in a market is below the equilibrium price, consumers will not be able to buy all of the products they want to buy. In this situation, the disequilibrium is in the form of a **shortage** where demand exceeds supply. This is known as a situation of **excess demand**. In order for a state of equilibrium to be restored in this market, the price will need to rise until it is at a point where demand is equal to supply.

Common error

Some candidates state that a shortage is where supply exceeds demand and that a surplus is where demand exceeds supply, rather than the other way around.

Key terms

Surplus: the supply of products exceeds the demand for the products

Excess supply: the amount by which supply is greater than demand in a market

Shortage: the demand for products exceeds the supply of products

Excess demand: the amount by which demand is greater than supply in a market

Recap

- If a market is in a state of disequilibrium, market forces will move it back towards a state of equilibrium.
- If the price is above the equilibrium price, there will be a situation of excess supply.
- If the price is below the equilibrium price, there will be a situation of excess demand.

Reminder

The idea of market disequilibrium is also covered in section 2.2.1.

Questions

1. Explain what is meant by a situation of market disequilibrium.
2. Explain how a market moves from disequilibrium to equilibrium.

You need to know:

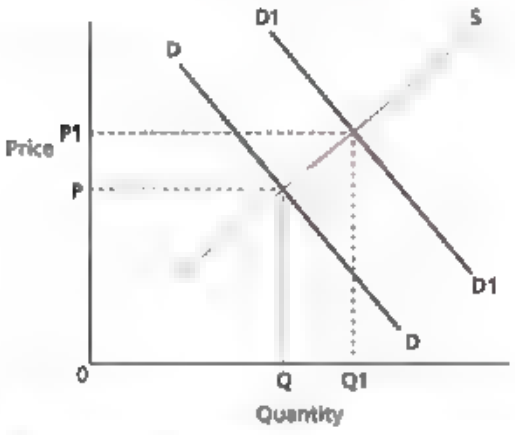
- **changing market conditions as causes of price changes, and how to use demand and supply diagrams to illustrate these changes in market conditions and their consequences for equilibrium price and sales**

2.6.1 Causes and consequences of price changes

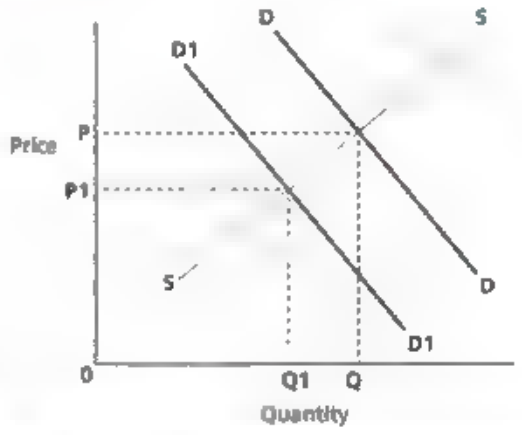
Price changes are caused by changes in demand and supply. The effect of demand and supply changes on equilibrium price and equilibrium quantity in a market is shown in the table below.

	Effect on equilibrium price	Effect on equilibrium quantity
The demand curve shifts to the right	Increases	Increases
The demand curve shifts to the left	Falls	Falls
The supply curve shifts to the right	Falls	Increases
The supply curve shifts to the left	Increases	Falls

Figure 22 illustrates the effect of an increase in the demand for a good. The increase in demand is shown by a shift of the demand curve to the right from DD to D1D1. This demand shift causes the price in the market to rise from 0P to 0P1.



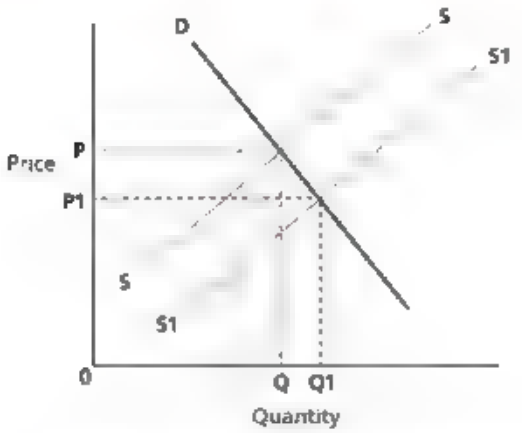
▲ **Figure 22** *The effect of an increase in demand on price*



▲ **Figure 23** *The effect of a decrease in demand on price*

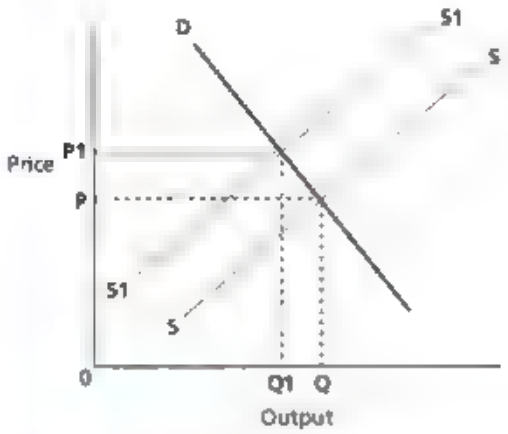
Figure 23 illustrates the effect of a decrease in the demand for a good. The decrease in demand is shown by a shift of the demand curve to the left from DD to D1D1. This demand shift causes the price in the market to fall from 0P to 0P1.

Price changes are also caused by changes in supply as well as demand. Figure 24 illustrates the effect of an increase in the supply of a good. The increase in supply is shown by a shift of the supply curve to the right from SS to S1S1. This supply shift causes the price in the market to fall from 0P to 0P1.



▲ **Figure 24** *The effect of an increase in supply on price*

Figure 25 illustrates the effect of a decrease in the supply of a good. The decrease in supply is shown by a shift of the supply curve to the left from SS to S1S1. This supply shift causes the price in the market to rise from 0P to 0P1.



▲ **Figure 25** *The effect of a decrease in supply on price*

Recap

- A change in the quantity demanded of a product or in the quantity supplied results from a change in its price.
- A change in demand or supply results from a change in the conditions of demand or supply.
- A change in demand and supply leads to a new market quantity and a new market price.

Changes in the conditions of demand are covered in section 2.3.4. Changes in the conditions of supply are covered in section 2.4.4.

1. Explain, with the aid of a diagram, the effect of a shift of a demand curve to the right on equilibrium price and equilibrium quantity in a market.
2. Explain, with the aid of a diagram, the effect of a shift of a supply curve to the left on equilibrium price and equilibrium quantity in a market.

You need to know:

- the definition of price elasticity of demand
- how to calculate price elasticity of demand using the formula and interpreting the significance of the result, and drawing and interpreting demand curve diagrams to show different price elasticities of demand
- the key influences on whether demand is elastic or inelastic
- the relationship between price elasticity of demand and total spending on a product/revenue, both in a diagram and as a calculation
- the link between individual and market demand in terms of aggregation

2.7.1 Definition of price elasticity of demand

Price elasticity of demand is defined as the responsiveness of the quantity demanded of a product to a change in the price of that product. It is always a minus figure. This is because an increase in price leads to a fall in demand and a decrease in price leads to a rise in demand. There is, therefore, an inverse relationship between the change in price and the change in the quantity demanded, although the minus sign is often omitted.

Recap

- Price elasticity of demand measures the responsiveness of demand changes to price changes
- Price elasticity of demand is represented by a minus figure because there is an inverse relationship between changes in demand and changes in price

Practice

1. Define price elasticity of demand
2. Explain why price elasticity of demand is represented by a minus figure

Key term

Price elasticity of demand: the responsiveness of the quantity demanded of a product to a change in the price of that product

Common error

A common mistake is to state that a particular product is elastic, for example, a car or a holiday. Make sure you understand that it is not the product that is elastic but the demand for it.

Link

The calculation of price elasticity of demand, the determinants of price elasticity of demand, the relationship between price elasticity of demand and total spending on a product/revenue, and the significance of price elasticity of demand are covered in 2.7.

2.7.2 Calculation of price elasticity of demand

Price elasticity of demand is calculated using the following formula:

$$\text{price elasticity of demand} = \frac{\%\text{ change in the quantity demanded of a product}}{\%\text{ change in the price of a product}}$$

The demand for a product is **elastic** when it changes by a larger proportion than the change in price. The figure for price elasticity of demand is greater than 1.

The demand for a product is **perfectly elastic** when a change in price causes a complete change in the quantity demanded. The figure for price elasticity of demand is infinite.

The demand for a product is **inelastic** when it changes by a smaller proportion than the change in price. The figure for price elasticity of demand is less than 1.

Key terms

Elastic demand: when the quantity demanded of a product changes by a greater percentage than the change in price

Perfectly elastic demand: when the quantity demanded of a product is completely changed by a change in price

Inelastic demand: when the quantity demanded of a product changes by a smaller percentage than the change in price

Key terms

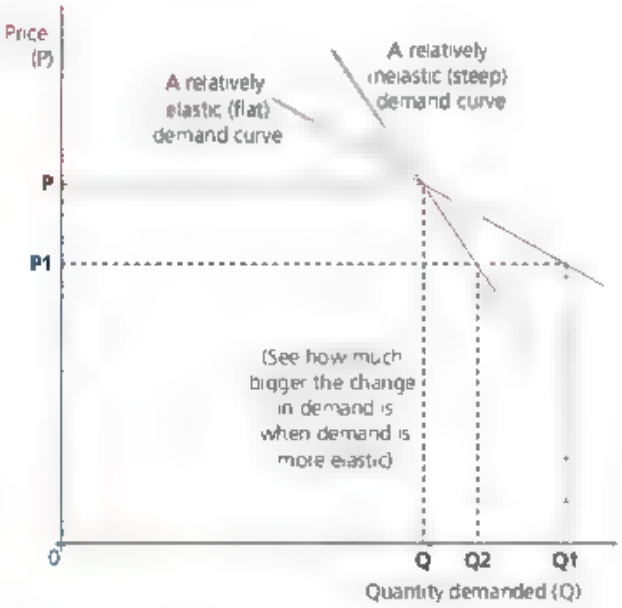
Perfectly inelastic demand: when the quantity demanded of a product is completely unchanged by a change in price

Unitary elastic demand: when the quantity demanded of a product changes by the same percentage as the change in price

The demand for a product is **perfectly inelastic** when a change in price has no effect at all on the quantity demanded. The figure for price elasticity of demand is 0.

The demand for a product is **unitary** when it changes by the same proportion as the change in price. The figure for price elasticity of demand is equal to 1.

Figure 26 shows how different price elasticities of demand can be illustrated in a diagram. Where demand for a product is relatively elastic, this is represented by a shallow sloping demand curve. Where demand for a product is relatively inelastic, the demand curve will be steeper.



▲ **Figure 26** *Demand curve diagrams can show different price elasticities of demand*

Common errors

Many candidates define price elasticity of demand in terms of changes in the quantity demanded and changes in the price of a product without pointing out that price elasticity of demand shows the relationship between percentage or proportionate changes in quantity and price.

Exam

1. Explain what is meant when the price elasticity of demand for a product is described as inelastic.
2. Which of the following correctly describes price elasticity of demand?
   - **a.** Change in demand divided by change in price
   - **b.** Change in price divided by change in demand
   - **c.** Percentage change in demand divided by percentage change in price
   - **d.** Percentage change in price divided by percentage change in demand

Link

The definition of price elasticity of demand is covered in 2.7.1.

2.7.3 Determinants of price elasticity of demand

The main determinants of price elasticity of demand include the following:

Determinant	Influence on price elasticity of demand
The availability of substitutes of a similar quality and price	If a product has a close substitute, the price elasticity of demand will be relatively elastic. If it does not, the price elasticity of demand will be relatively inelastic.
The proportion of income spent on the product	If the purchase of a product takes up a high proportion of income, the price elasticity of demand will be relatively elastic. If it only takes up a small proportion of income, the price elasticity of demand will be relatively inelastic.
Whether the product is a necessity or a luxury	If a product is a luxury, the price elasticity of demand will be relatively elastic. If a product is a necessity, the price elasticity of demand will be relatively inelastic.
Whether the product is addictive or not	If a product is not addictive, the price elasticity of demand will be relatively elastic. If a product is addictive, the price elasticity of demand will be relatively inelastic.
Whether its purchase can be postponed	If the purchase of a product can be postponed, the price elasticity of demand will be relatively elastic. If the purchase of a product cannot be easily postponed, the price elasticity of demand will be relatively inelastic.
The width of the definition of the market	If a product is narrowly defined, the price elasticity of demand will be relatively elastic. If a product is widely defined, the price elasticity of demand will be relatively elastic.
The time period	If the time period is long, the price elasticity of demand will be relatively elastic. If the time period is short, the price elasticity of demand will be relatively inelastic.

Each of these determinants can influence the price elasticity of demand for a product. For example, the price elasticity of demand for a necessity will be relatively inelastic whereas the price elasticity of demand for a luxury will be relatively elastic.

Exam tip

Make sure that you know which are the key influences on whether the demand for a product is elastic or inelastic.

Recap

The price elasticity of demand for a product is influenced by a number of key determinants. These include:

- the availability of substitutes of a similar quality and price
- the proportion of income spent on the product
- whether the product is a necessity or a luxury
- whether the product is addictive or not
- whether its purchase can be postponed
- the width of the definition of the market
- the time period

Question

Explain why the price elasticity of demand for a necessity is relatively inelastic.

Connect

The price elasticity of demand for a product can be shown by the shape of the demand curve (see section 2.7.2).

2.7.4 Price elasticity of demand and total spending on a product/revenue

Revenue

The **revenue** of a business is the total amount of money received from the selling of its products. The formula for its calculation is:

quantity sold of a product x price of each item sold

If a firm wants to increase its revenue, it will increase the price of its products when the demand for them is relatively inelastic, and it will reduce the price of its products when the demand for them is relatively elastic.

The following table shows the relationship between changes in the price of a product and the price elasticity of demand for the product.

Price change	Elastic demand	Inelastic demand
Price increase	Revenue will fall	Revenue will rise
Price decrease	Revenue will rise	Revenue will fall

This can also be shown in a diagram. If the price elasticity of demand for a product is elastic and the price is reduced, the area shown by the gain in revenue from selling more units will be greater than the area shown by the loss in revenue from charging a lower price for each unit sold. On the other hand, if the price elasticity of demand for a product is inelastic and the price is reduced, the area shown by the gain in revenue from selling more units will be less than the area shown by the loss in revenue from charging a lower price for each unit sold.

Key term

Revenue: the money obtained from selling a certain quantity of products at a given price per item

Common error

Some candidates state that price inelastic demand for a product means that demand does not change when the price of a product changes. This is not usually the case. Demand will change, but by a smaller percentage than the change in price.

▲ **Figure 27** *The price elasticity of demand for transport by train is relatively elastic, so by cutting rail fares the revenue can be substantially increased*

Recap

- Businesses should identify price elasticity of demand in order to maximise revenue.
- If the price elasticity of demand for a product is elastic, a firm should reduce price to increase revenue.
- If the price elasticity of demand for a product is inelastic, a firm should raise price to increase revenue.

Question

Explain what a firm should do, in terms of possible price changes, to increase revenue when selling a product with elastic price elasticity of demand.

Challenge

There is a useful case study on Indian railways on page 40 of the Student Book and a useful example of the link between revenue and price elasticity of demand on page 42 of the Student Book.

2.7.5 Significance of price elasticity of demand

Knowledge of the price elasticity of demand for different products is useful for the following economic agents.

Economic agent	Implications for decision making
Consumers	Consumers are likely to benefit when the price elasticity of demand for a product is elastic. For example, if there were many substitutes that a consumer could choose between, it is likely that the price of a product would be lower and the quality higher than would otherwise be the case.
Producers	Producers are likely to want to try to keep prices as low as possible for products with elastic price elasticity of demand, knowing that price increases could significantly reduce demand. A producer aiming to maximise revenue will be likely to reduce prices of a product when price elasticity of demand is elastic and increase them when price elasticity of demand is inelastic.
Government	A government is likely to take price elasticity of demand into account when making decisions about which products to tax and by how much. For example, if it wanted to discourage consumption of a certain product such as alcohol or cigarettes by raising the tax on such products, the policy is likely to be more successful if the price elasticity of demand for such products is relatively elastic. However, if the aim of such a policy is to raise the money received from taxation, the policy is likely to be more successful if the price elasticity of demand for such products is relatively inelastic.

▲ **Figure 28** *Knowledge of price elasticity of demand will help a government take a decision on imposing taxation on products such as petrol or diesel to maximise tax revenue*

Recap

- Knowledge of price elasticity of demand for different products can help decision making.
- Consumers may decide to purchase products of a lower price and a higher quality in a market where there are many substitutes, making price elasticity of demand relatively elastic.
- Producers will be influenced by the price elasticity of demand for different products, raising the prices of those with inelastic demand and lowering the prices of those with elastic demand.
- A government, in seeking to maximise tax revenue, will be more likely to impose taxes on those products with inelastic price elasticity of demand because demand will not fall by very much even if there is a price increase.

Question

Explain, using examples, why knowledge of price elasticity of demand is useful for governments aiming to maximise tax revenue.

Connect

The significance of price elasticity of demand is also covered in section 2.7.4 looking at price elasticity of demand and the total spending on a product by consumers.

You need to know:

- **the implications for decision making by consumers, producers and government**
- **calculation of price elasticity of supply using the formula and interpreting the significance of the result, and how to draw and interpret supply curve diagrams to show different price elasticities of supply**
- **the key influences on whether supply is elastic or inelastic**
- **the implications for decision making by consumers, producers and government**

Price elasticity of supply: the responsiveness of the quantity supplied of a product to a change in the price of that product

Explain what is meant by the term 'price elasticity of supply'

The calculation of price elasticity of supply, the determinants of price elasticity of supply and the significance of price elasticity of supply are covered in section 2.8.

Elastic supply: when the quantity supplied of a product changes by a greater percentage than the change in price

Perfectly elastic supply: when the quantity supplied of a product is completely changed by a change in price

Inelastic supply: when the quantity supplied of a product changes by a smaller percentage than the change in price

Perfectly inelastic supply: when the quantity supplied of a product is completely unchanged by a change in price

Unitary elastic supply: when the quantity supplied of a product changes by the same percentage as the change in price

2.8.1 Definition of price elasticity of supply

Price elasticity of supply is defined as the responsiveness of the quantity supplied of a product to a change in the price of that product. It is always a plus figure. This is because an increase in price leads to a rise in supply and a decrease in price leads to a fall in supply. There is therefore a positive relationship between the change in price and the change in the quantity supplied, although the plus sign is often omitted.

Recap

- Price elasticity of supply measures the responsiveness of supply changes to price changes.
- Price elasticity of supply is represented by a plus figure because there is a positive relationship between changes in supply and changes in price.

2.8.2 Calculation of price elasticity of supply

Price elasticity of supply is calculated by using the following formula:

$$\text{price elasticity of supply} = \frac{\%\text{ change in the quantity supplied of a product}}{\%\text{ change in the price of a product}}$$

The supply of a product is **elastic** when it changes by a larger proportion than the change in price. The figure for price elasticity of supply is greater than 1.

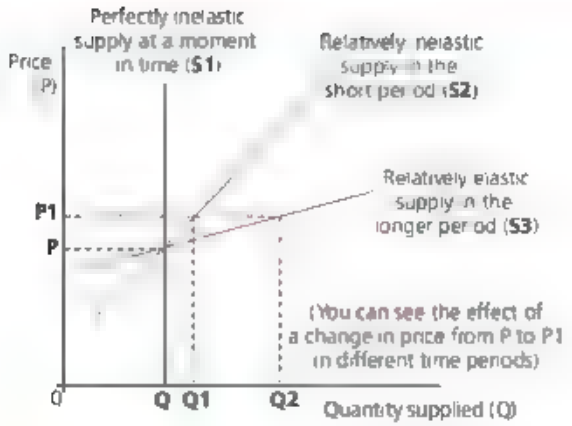
The supply of a product is **perfectly elastic** when a change in price causes a complete change in the quantity supplied. The figure for price elasticity of supply is infinite.

The supply of a product is **inelastic** when it changes by a smaller proportion than the change in price. The figure for price elasticity of supply is less than 1.

The supply of a product is **perfectly inelastic** when a change in price has no effect at all on the quantity supplied. The figure for price elasticity of supply is 0.

The supply of a product is **unitary** when it changes by the same proportion as the change in price. The figure for price elasticity of supply is equal to 1.

Figure 2.9 shows how different price elasticities of supply can be illustrated in a diagram. Where supply of a product is relatively elastic, over a long period of time, this is represented by a shallow sloping supply curve (S3). Where supply of a product is relatively inelastic, over a shorter period of time, the supply curve will be steeper (S2). Where supply of a product is perfectly inelastic, at a given moment in time, the supply curve will be vertical (S1).



▲ **Figure 29** *Supply curve diagrams can show different price elasticities of supply*

Common error

Many candidates define price elasticity of supply in terms of changes in the quantity supplied and changes in the price of a product without pointing out that price elasticity of supply shows the relationship between percentage or proportionate changes in quantity and price

Apply

Explain what is meant when the price elasticity of supply of a product is described as elastic

2.8.3 Determinants of price elasticity of supply

The main determinants of price elasticity of supply include the following:

Determinant	Influence on price elasticity of supply
The time period	The main determinant of price elasticity of supply is the time period. It may be impossible to increase the supply of a product – price elasticity of supply will be perfectly inelastic. In the short term, it may be possible to increase supply to some extent. In this situation, price elasticity of supply will be relatively inelastic. In the long term, it will be easier to increase the supply of a product in response to a change in price of the product so price elasticity of supply will be relatively elastic.
The ease with which a product can be stored	If it is relatively easy to store a product, price elasticity of supply will be more elastic. If it is relatively difficult to store a product, as with many agricultural products, price elasticity of supply will be less elastic.
The cost of increasing supply	The less costly it is to increase the supply of a product, the more elastic the price elasticity of supply will be. The more expensive it is to increase the supply of a product, the less elastic price elasticity of supply will be.

Exam tip

Make sure that you know which are the key influences on whether the supply of a product is elastic or inelastic.

Recap

The price elasticity of supply of a product is influenced by a number of key determinants. These include:

- the time period
- the ease with which a product can be stored
- the cost of increasing supply

▲ **Figure 30** *The price elasticity of supply will be relatively inelastic for fruit and vegetables because these products cannot be stored for a long period of time*

Activity

Explain why the price elasticity of supply of agricultural products is often more inelastic than that of manufactured products

Worked example

The price elasticity of supply of a product can be shown by the shape of the supply curve (see section 2.8.2)

2.8.4 Significance of price elasticity of supply

Knowledge of the price elasticity of supply for different products is useful for the following economic agents:

Economic agent	Implications for decision making
Consumers	Consumers benefit from the price elasticity of supply being elastic. Supply is relatively responsive to consumer demand and sales may rise without there necessarily being a large increase in price (shown in supply curve S3 in Figure 29)
Producers	Producers also benefit from an elastic price elasticity of supply and will aim to change supply as quickly as possible in response to a change in price so that their profits will be higher
Government	A government can encourage the supply of a product by giving a subsidy to producers. This is likely to be more successful if the price elasticity of supply is relatively elastic

Recap

- Knowledge of price elasticity of supply of different products can help decision making.
- Consumers benefit from a relatively elastic price elasticity of supply because this will mean that prices will not increase by too much.
- Producers will be influenced by the price elasticity of supply for different products. If supply is very responsive to price changes, profits are likely to be higher.
- A government can decide to help producers by giving them a subsidy and this is likely to bring about a significant increase in output when the price elasticity of supply is elastic.

Signpost

There is a case study on subsidies on page 61 of the Student Book

Activity

Explain, using examples, why knowledge of the price elasticity of supply is useful for producers

You need to know:

- **the roles of the private sector (firms and consumers) and the public sector (government) in a market economy**
- **advantages of market economic systems, disadvantages of market economic systems, and examples of how they work in a variety of different countries**

2.9.1 Definition of market economic systems

Market prices

In a market economic system the price mechanism plays a key role in determining the allocation of resources. The forces of demand and supply determine market prices and changes in demand and supply will lead to changes in market prices.

The key participants in a market economic system are:

- firms
- consumers
- government

▲ **Figure 31** *The roles of firms, consumers and government in the market economic system*

Figure 31 shows how these three economic agents come together in a market system.

The key decisions in a market economic system are as follows:

What to produce	This is determined by independent businesses that aim to make a profit from producing the products that consumers are able and willing to buy
How much to produce	Businesses aim to produce the output that will maximise their profit, with consumers signalling to the businesses which products they want by their ability and willingness to pay the price charged
Who gets the products	Consumers acquire the products they want by purchasing them according to their ability and willingness to pay the market price

▲ **Figure 32** *Markets, such as this one in Kingston, Jamaica, bring together buyers and sellers of products*

The private and public sectors

A market economy primarily involves the **private sector**, but there may also be a **public sector**.

The private sector consists of small, medium and large firms that are independently owned. The main aim of these businesses is to make a profit. They respond to market signals that are indicated by consumers through the price mechanism.

The public sector consists of enterprises owned by the government. These will vary from one country to another, but in many countries rail services, bus services, oil, gas and electricity industries and the central bank will be owned by the government. Government departments, such as the tax department, are also part of the public sector.

Key Terms

Private sector: the part of an economy that is owned by private individuals and organisations, not the government

Public sector: the part of an economy that is owned by the government

Exam tip

Make sure that you are able to clearly differentiate between the private sector and the public sector in an economy, using appropriate examples to support your answer

▲ **Figure 33** *Even in a market system like Barbados, there is a public sector. Government blue buses compete with private sector buses and provide an important service on certain routes.*

Recap

- In a market economic system, most decisions will be made by firms and consumers.
- The market will determine what will be produced in a market economic system through the interaction of the forces of demand and supply.
- There are two sectors in a market economic system: a private sector (firms and consumers) and a public sector (government).

Activity

1. Distinguish between the private sector and the public sector in an economy.
2. List some examples of the private sector and the public sector in your country.

Signpost

The role of markets in allocating resources is covered in section 2.2. The role of government in an economy is covered in unit 4. There is a useful case study about the market economic system in Barbados on pages 46–47 of the Student Book.

2.9.2 Advantages and disadvantages of market economic systems

Advantages	Disadvantages
A market economic system brings together the buyers and sellers of products.	A market economic system may not always protect weaker members of society, such as the elderly or the poor.
The price mechanism used in a market is an effective way of reallocating scarce resources from one use to another in response to the decisions taken by the producers and consumers. In fact, a key feature of a market economic system is the existence of **consumer sovereignty**.	The pursuit of profit by firms may be at the expense of the health and safety of workers and consumers or of environmental standards and ethical behaviour.
Decision making is coordinated and efficient.	Decision making may be distorted by fashion or advertising.
In a market economic system, there will be competition between different producers, keeping price relatively low and quality relatively high.	There will not necessarily be competition in all parts of a market economic system; in some parts of the economy, there may be little or no competition, leaving firms to increase price and reduce quality.
Consumers will have a wide range of products to choose between.	There may be examples of market failure, such as the overproduction and overconsumption of demerit goods, the underproduction and underconsumption of merit goods, and the non-production of public goods.

Key terms

Consumer sovereignty: the power of consumers to determine what is produced in an economy through their decision making

Exam tip

If you need to discuss a market economic system in a response to an exam question, make sure that you consider both the advantages and the disadvantages of such a system.

Examples of how market economic systems work

A market economic system will work slightly differently in each country, but its key features and characteristics will be broadly similar:

- the bringing together of buyers and sellers
- the allocation of scarce resources through decisions taken by buyers and sellers
- the three key questions of what to produce, how to produce and for whom to produce
- the answers to these three key questions through the operation of the price mechanism and the giving out of appropriate signals
- a relatively important role for the private sector (firms and consumers) and a relatively restricted role for the public sector (government).

Examples of countries where market economic systems work include the United States, the United Kingdom, New Zealand, Switzerland, Australia, Japan and the Republic of Ireland.

Recap

- A market economic system has a number of advantages, including being an effective way of bringing buyers and sellers together, providing competition between producers and giving consumers a relatively wide choice of products.
- A market economic system has a number of disadvantages, including a lack of protection for the elderly and the poor, the possibility of failing to adhere to environmental and ethical standards, the distortion of consumer decision making by advertising and the possible absence of competition.

Practice

1. Outline the key features of a market economic system.
2. To what extent would you describe your country's economy as a market economic system?

Extension

Some of the disadvantages of market economic systems are covered in section 2.10 on market failure.

You need to know:

- **the key terms associated with market failure – public good, merit good, demerit good, social benefits, external benefits, private benefits, social costs, external costs, private costs**
- **causes of market failure with respect to public goods, merit goods and demerit goods, external costs and external benefits, abuse of monopoly power and factor immobility**
- **the implications of misallocation of resources in respect of the overconsumption of demerit goods and goods with external costs, and the underconsumption of merit goods and goods with external benefits**

Key terms

Market failure: a situation where market forces give rise to an inefficient allocation of resources in an economy

Public good: a product that is both non-rival and non-excludable; therefore it is provided by a government and financed by taxation

Free rider: someone who consumes a product without paying for it

Merit good: a good with potentially substantial benefits but which is underconsumed and underproduced as a result of information failure

Information failure: a situation where people lack the full information required for them to make the best consumption decisions

Demerit good: a good with potentially harmful effects but which is overconsumed and overproduced as a result of information failure

Common error

A public good and a merit good are sometimes confused. A public good is one that needs to be provided by a government because of the existence of the free rider problem. A merit good is a private good that can be provided by either the public sector or the private sector or by both.

2.10.1 Definition of market failure

Market failure exists when there is an inefficient allocation of resources in an economy. For example, such inefficiency would occur when a market does not always produce a desirable output.

A **public good** is one that is provided to the whole of a society by a government and is funded out of taxation. Examples include street lighting, police and defence. It would be impossible, or at least very difficult, to charge a price for such services as it would be difficult to exclude those who had not paid. This gives rise to the **free rider** problem – a free rider is someone who consumes a product without paying for it. This is why services such as these are provided by the public sector and not the private sector.

A public good is characterised by two key characteristics:

- non-rival: the consumption of a public good by one person does not reduce the possibility of it being consumed by another person
- non-excludable: no one can be excluded from consuming the public good.

A public good can also be regarded as non-rejectable because it would be difficult to reject something like defence or street lighting.

A **merit good** is one that exists as a result of **information failure** – consumers do not have all the information needed to fully understand that a merit good can have substantial benefits, both to themselves and to wider society, so such goods tend to be underproduced and underconsumed. Examples of a merit good are education, health care and vaccinations.

▲ **Figure 34** *Inoculating children against potentially harmful diseases can be regarded as an example of a merit good because it not only benefits the children, but the whole community as well.*

A **demerit good** is also one that exists as a result of a situation of information failure – consumers do not have all the information needed to fully understand that a demerit good can have negative effects, both to themselves and to wider society, therefore such goods tend to be overproduced and overconsumed. Examples of demerit goods are tobacco and alcohol.

It is possible to distinguish between the private benefits and costs of an economic activity and the external benefits and costs of such an activity.

A **private benefit** refers to the financial advantages of an economic activity to a particular firm. A **private cost** refers to the financial disadvantages of such an activity to a business.

However, economic activity does not only affect the firm carrying out that activity. Very often, there will be consequences for the wider community, for the people living in the area where the economic activity is taking place. When these consequences are beneficial, they are known as an **external benefit** and when they have a negative effect on the community they are known as an **external cost**.

To fully understand the benefits and costs of any economic activity, it is necessary to add these private and external benefits and costs together. When private benefits and external benefits are added together, it gives rise to **social benefits**. When private costs and external costs are added together, it gives rise to **social costs**.

Examples of the various private and external benefits and costs of a factory can be seen below.

Private benefits	Private costs	External benefits	External costs
The revenue earned by the firm, contributing to its profits	The cost of capital equipment, labour and raw materials	The jobs created in the area, reducing the level of unemployment	The noise and air pollution, and the traffic congestion resulting from the factory

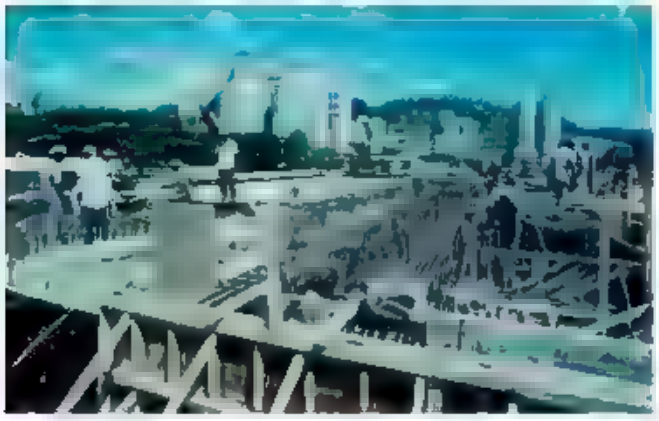


Figure 35 *The building of a new factory in Thailand has both private and external benefits and costs*

Key terms

Private benefit: the advantages to an individual or to a firm resulting from an economic activity

Private cost: the disadvantages to an individual or to a firm resulting from an economic activity

External benefit: the advantages to the wider community or society resulting from an economic activity

External cost: the disadvantages to the wider community or society resulting from an economic activity

Social benefit: the addition of the private benefit and the external benefit resulting from an economic activity

Social cost: the addition of the private cost and the external cost resulting from an economic activity

Summary

- Market failure refers to an inefficient allocation of resources – another outcome would have led to participants in the market being better off.
- A public good needs to be provided by a government because such a good is non-rival and non-excludable and gives rise to the free rider problem.
- A merit good is a private good that has substantial benefits for both individuals and the wider community and can be provided by either the public sector, the private sector or both.
- A demerit good is a private good that has potentially serious negative consequences, both for the individual and the wider community.
- Economic activity gives rise to social benefits (the addition of private benefits and external benefits) and to social costs (the addition of private costs and external costs).

Activity

1. Explain what is meant by market failure.
2. Distinguish, using examples of each, between a public good and a merit good.
3. Which of the following is a merit good?
   a. Alcohol
   b. Defence
   c. Education
   d. Street lighting

The existence of market failure is referred to in section 2.9.2 as one of the disadvantages of market economic systems. There is a case study on the provision of vaccinations and family planning services on page 51 of the Student Book.

2.10.2 Causes of market failure

Public goods

One cause of market failure is the inability of a market to provide public goods, such as defence, police or street lighting, because of the free rider problem. This means that it is impossible to charge people for using a public good, so no private sector firm would be willing to provide a service that could not guarantee its income.

Merit goods

Another cause of market failure is the inability of a market to supply a sufficient quantity of merit goods. The demand for merit goods is lower than would be expected to be the case if everybody had sufficient information about the potential advantages of the consumption of such goods. However, as a result of information failure, production and consumption of merit goods is lower than would be the case if full information had been obtained.

Demerit goods

Whereas merit goods are underproduced and underconsumed in a market, it is the opposite with demerit goods. There is also information failure with regard to these goods, with people not fully aware of the harmful consequences of the excessive consumption of goods such as tobacco or alcohol, so there is overproduction and overconsumption over of such goods.

External benefits and external costs

External benefits and costs refer to the benefits and costs to **third parties** those people affected by the decisions of others but who were not involved in taking the decision themselves. Such an effect is sometimes referred to as a **spillover effect**. In the case of an external benefit, it is known as a **positive externality** and in the case of an external cost, it is known as a **negative externality**. An example of market failure is where an economic decision does not sufficiently take negative externalities into account, such as when an economic decision leads to pollution and degradation of the environment.

Abuse of monopoly power

A market may fail when there is a lack of competition between firms and one firm dominates a market. Such a firm is called a **monopoly**. In such a situation, the firm may abuse its monopoly power, and take advantage of the lack of competition, by increasing the price and reducing the quality of its output.

Key terms

Third party: those not directly involved in the production or consumption of a product

Spillover effect: the effect of certain decisions that have an impact on those who are neither the producers nor the consumers of a product

Positive externality: the external benefit that may occur as the result of an economic action, bringing some benefit to a third party

Negative externality: external cost that may occur as the result of an economic action, bringing some disadvantage to a third party

Monopoly: a situation where there is only one firm in a market

▲ **Figure 36** *Large banana plantations can create negative externalities so that the low price of bananas does not fully reflect the social cost of using scarce resources to grow bananas*

Factor immobility

One advantage of a market is that it provides a mechanism for the allocation of scarce resources from one use to another. However, this only applies to markets when it is relatively easy for factors of production to be moved from one geographical area to another, or from one occupational use to another. This may not always be the case, so another example of market failure is where factors are not easily moved from one area to another (geographical immobility) or from one use to another (occupational immobility).

Recap

There are a number of possible causes of market failure including:

- the non-production of public goods
- the underproduction and underconsumption of merit goods
- the overproduction and overconsumption of demerit goods
- the failure to take external benefits and external costs fully into account
- the possible abuse of monopoly power
- the geographical and occupational immobility of factors of production

Activity

1. Explain what is meant by a negative externality
2. Explain how there could be an abuse of monopoly power in a market

Signpost

Public goods, merit goods, demerit goods, external benefits and external costs are also covered in section 2.10.1. Factor immobility is covered in section 1.2.2. Monopoly markets are covered in section 3.8.2. There is a case study on negative externalities in relation to banana growing in Central America on page 55 of the Student Book.

2.10.3 Consequences of market failure

Market failure has a number of consequences. One of these relates to the overconsumption of demerit goods, those considered to be unhealthy or damaging to individuals and to society as a whole. As a result of information failure, people consuming such products are consuming more than they would if they knew the likely effects of such consumption. As a result of this overconsumption, there is a misallocation of resources – too many resources are being allocated to the production of such products.

Another consequence is the overproduction of goods with external costs. For example, production of certain products may lead to a high level of pollution, but this production will still go ahead because the producer is only concerned with private benefits and costs, not external benefits and costs. The true benefit and cost to the community is shown by the social benefit and the social cost, but producers only take into account private benefits and costs. As a result of this overproduction, there is again a misallocation of resources.

The consequences of market failure also include the underconsumption of merit goods, those considered to have substantial benefits to the individuals consuming them and to the wider society, such as education and health care. As a result of this, there is a misallocation of resources – too few resources are being allocated to their production.

Another consequence of market failure is underproduction of goods with external benefits. For example, the establishment of a factory will create jobs in the factory and in firms supplying parts to the factory, but this will not be considered by the factory owners because they are only concerned with private benefits, not external benefits. As a result of this underproduction of goods with external benefits, there is a misallocation of resources – too few resources are allocated to their production.

In order to avoid the misallocation of resources in a market, production should be at the **socially optimum output**. This is where the social benefit of the last unit produced is equal to the social cost of that unit.

Key term

Socially optimum output: output where social benefit equals social cost

Apply

Explain how market failure can lead to a misallocation of resources in an economy.

Remember

The definition of market failure is covered in section 2.10.1 and the causes of market failure in 2.10.2.

You need to know:

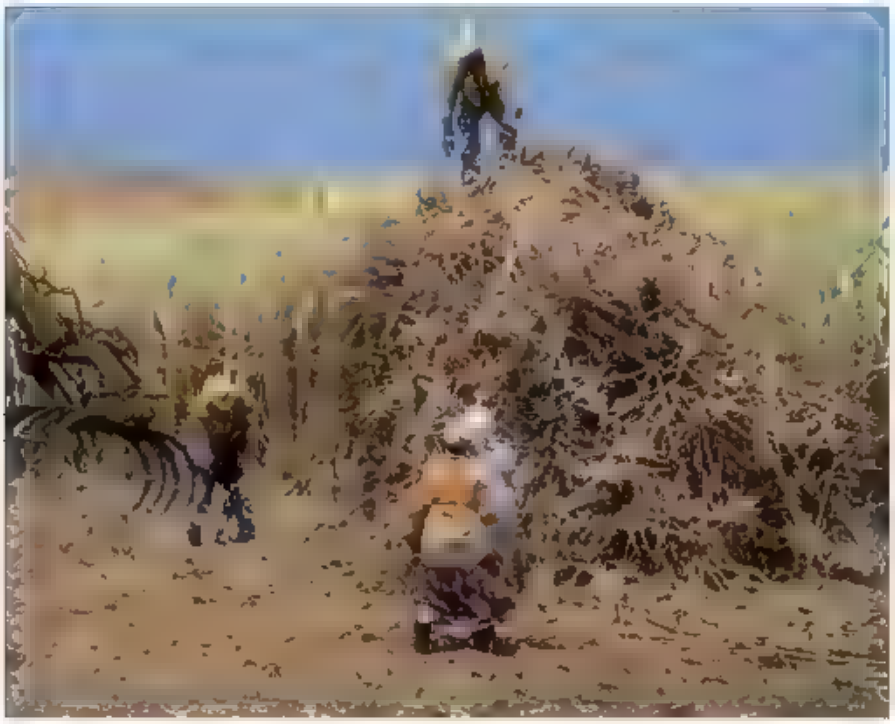
- the definition of mixed economic systems
- definitions, how to draw and interpret appropriate diagrams showing the effects of government microeconomic policy measures

2.11.1 Definition of mixed economic systems

A **mixed economic system**, or **mixed economy**, combines elements of the market economic system with a degree of government intervention and ownership.

Key Word

Mixed economic system (or mixed economy): an economic system in which both the private sector and the public sector play a key role



▲ **Figure 37** *In a mixed economic system, such as Mauritius, most economic decisions are taken by the market, but the government does intervene in some situations, such as providing subsidies to farmers to increase the production of sugar cane*

Recap

A mixed economic system is defined as one in which both the private sector and the public sector play a key role

Task

Distinguish between a market economic system and a mixed economic system

Signpost

Government intervention in a mixed economic system to address market failure is covered in section 2.11.2

Key terms

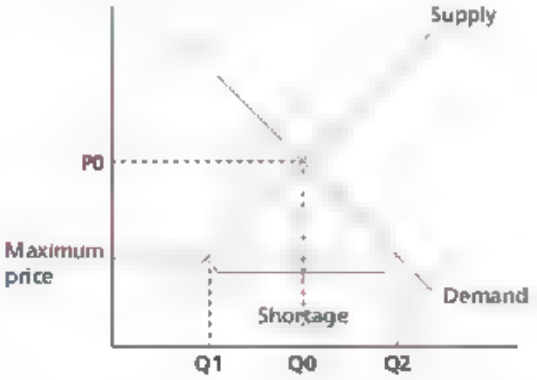
Maximum price: a price established in a market below the equilibrium price

Minimum price: a price established in a market above the equilibrium price

2.11.2 Government intervention to address market failure

Maximum and minimum prices in markets

A government may believe that a market price is too high and that many consumers are unable to buy a product. This will be a serious problem if the product is an essential item. The government could therefore decide to impose a **maximum price** in the market below the equilibrium price. This can be seen in Figure 38.



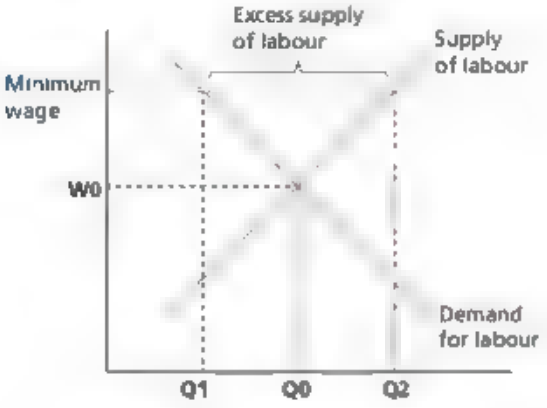
▲ **Figure 38** *The establishment of a maximum price in a market*

Common error

Candidates often wrongly draw the maximum price above the equilibrium price. A maximum price needs to be drawn below the equilibrium price.

The equilibrium is established where demand is equal to supply with an equilibrium price of P0 and an equilibrium quantity of Q0. The government could decide to establish a maximum price below the equilibrium price. This would make the product cheaper for everybody. However, the quantity supplied is now Q1, less than the quantity demanded of Q2, so a shortage has been created in the market. The excess demand is the distance between Q1 and Q2.

It is also possible for a government to believe that a market price is too low. For example, some governments intervene in the labour market to establish a minimum wage. This **minimum price** is imposed in a market above the equilibrium price. This can be seen in Figure 39.



▲ **Figure 39** *The establishment of a minimum price in a market*

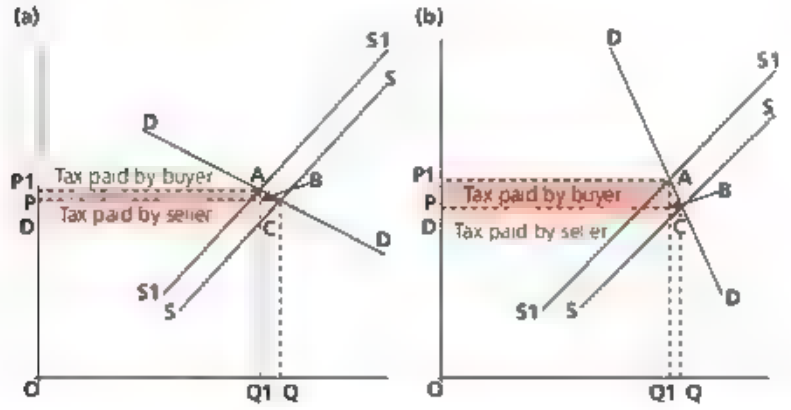
The equilibrium is established where the demand for labour is equal to the supply of labour with an equilibrium price of W0 and an equilibrium quantity of Q0. The government could decide to establish a minimum wage above the equilibrium wage. This would increase the wage of

those employed. However, the quantity demanded is now Q1, less than the quantity supplied of Q2, so a surplus has been created in the labour market. The excess supply is the distance between Q1 and Q2.

Indirect taxation

An **indirect tax** is a tax on expenditure and is usually paid by an intermediary, for example, a firm, to the government. The intermediary therefore collects the indirect tax on behalf of the government. Examples include a sales tax, a goods and services tax, and value added tax.

An indirect tax can be shown in a diagram by a shift of the supply curve to the left. This can be seen in Figure 40.



▲ **Figure 40** *The incidence of an indirect tax with (a) elastic demand and (b) inelastic demand*

The diagram shows that the supply curve shifts to the left from SS to S1S1 and that the price rises from OP to OP1. However, the price elasticity of demand will help to determine the **incidence** of the tax, that is, who will pay the tax. When price elasticity of demand is relatively elastic, as in (a), most of the tax is paid by the seller. When it is relatively inelastic, as in (b), most of the tax is paid by the buyer.

Subsidies

A subsidy is a payment made to producers by a government for a number of different possible reasons.

- to keep down the cost of production
- to encourage the production of essential products
- to encourage the development of new products and new industries
- to provide support to industries that are in decline
- to provide support to industries that are major employers of labour
- to protect domestic industries from foreign competition.

Figure 41 shows the effect of a subsidy in a market.

The diagram shows the effect of providing producers with a subsidy of 10 cents per unit. The supply curve will shift to the right, from S to S1, bringing about a decrease in price and an increase in quantity.

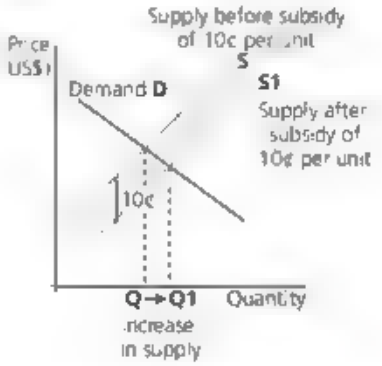
Key terms

Indirect tax: a tax on expenditure that is paid by an intermediary

Incidence of tax: the burden of a tax

Common error

Candidates often wrongly draw the minimum price below the equilibrium price. A minimum price needs to be drawn above the equilibrium price.



▲ **Figure 41** *The effect of a subsidy in a market*

Key terms

Regulation: a variety of rules or laws that apply to firms in different circumstances

Privatisation: the process of transferring the ownership of enterprises from the public sector to the private sector

Nationalisation: the process of transferring the ownership of enterprises from the private sector to the public sector

Direct provision: a situation where a government decides to provide a particular good or service itself

Recap

There are a number of government microeconomic policy measures that can be taken to address market failure

- maximum prices
- minimum prices
- indirect taxation
- subsidies
- regulation
- privatisation
- nationalisation
- direct provision

Regulation

A **regulation** is a rule or law established by a government. Regulations are usually backed up by a penalty for breaching them, such as a fine. Regulations influence and control the behaviour of firms in the private sector. For example, there are likely to be regulations about the establishment of new businesses in an economy.

Privatisation

Privatisation refers to the process of selling state-owned enterprises and transferring the ownership from the public sector to the private sector. The aim of privatisation is to encourage greater efficiency and competition in a market.

Nationalisation

Nationalisation refers to the process of transferring the ownership of firms from the private sector to the public sector, that is, enterprises are brought under the direct control of the government. The aim of nationalisation is to control an industry in the public or national interest.

Direct provision of goods

In some situations, a government may decide to make **direct provision** of particular goods and services itself. This is often the case with essential goods and services, such as education and health care.

The effectiveness of government intervention

Governments can be very effective in overcoming the drawbacks of a market economic system through the use of maximum and minimum prices, indirect taxation, subsidies, nationalisation and direct provision.

However, there are limits to the effectiveness of such government intervention. Maximum prices can lead to excess demand, minimum prices can lead to excess supply and nationalised enterprises can be bureaucratic and inefficient. It is even possible that government intervention could reduce the level of efficiency in an economy.

Exercise

1. Analyse the advantages and the disadvantages of a government establishing a maximum price in a market.
2. Describe the advantages and disadvantages of privatisation.
3. Which of the following statements is correct?
   - **a.** A minimum price is set above the equilibrium price.
   - **b.** A minimum price is set below the equilibrium price.
   - **c.** A minimum price is set equal to the equilibrium price.
   - **d.** A minimum price will shift the supply curve in a market to the right.

Textbook

There is a table of examples of regulations on page 58 of the Student Book and a case study on subsidies in Malawi on page 61 of the Student Book.

Exam-style question 1

a. Define the term 'microeconomics'. **[2]**

b. Describe how a market system works. **[4]**

c. Analyse the **three** key questions that need to be asked about determining resource allocation. **[6]**

d. Discuss the extent to which markets are always in a state of equilibrium. **[8]**

Analysis

✓ In (a), you will need to refer to the fact that microeconomic decisions are made on a relatively small scale and include some appropriate examples of economic agents, such as a firm and a consumer

✓ In (b), you will need to describe the role of a market in bringing together buyers and sellers who give out signals through the operation of the price mechanism

✓ In (c), you will need to focus on the three questions of what to produce, how to produce and for whom to produce

✓ In (d), you will need to discuss the fact that markets will sometimes be in a state of equilibrium and sometimes in a state of disequilibrium.

Mark scheme

a. One mark for small-scale decision making; one mark for appropriate reference to examples, such as a particular firm or an individual consumer. **[2]**

b. Up to two marks for the idea of bringing buyers and sellers together, up to two marks for a description of the role of the price mechanism as a signalling device **[4]**

c. Up to two marks for an analysis of the question of what to produce; up to two marks for an analysis of the question of how to produce; up to two marks for an analysis of the question of for whom to produce. **[6]**

d. Up to five marks for a consideration of a market being in a state of equilibrium; up to five marks for a consideration of a market being in a state of disequilibrium. **[8]**

Student answer

(a) Microeconomics is concerned with decision making on a small scale. [1 mark]

(b) A market works by bringing buyers and sellers together. [1 mark]

(c) One question is what to produce. Consumers indicate their preferences through the prices they are willing to pay for products and producers respond to these signals by producing the products that consumers are willing and able to consume. Another question is how to produce. Producers will want to maximise their profits, but will only produce the level of output that they know consumers will demand at particular prices. [4 marks]

(d) Markets will often be in a state of equilibrium which can be defined as a situation where there is no tendency to change. In this situation, demand and supply will be equal, establishing an equilibrium price and an equilibrium quantity. The equilibrium price is described as a market clearing price because the amount demanded by consumers at a particular price is equal to the amount offered for sale by producers at a particular price. There is therefore no excess demand or excess supply. [4 marks]

Total mark: 10/20

Examiner feedback

a. The candidate has referred to decision making on a small scale, but has not developed this by referring to such decision makers as individual firms or consumers.

b. The candidate has provided a very limited answer, only referring to a market bringing together buyers and sellers. The description needed to be developed more fully by referring to the allocation of scarce resources by signals given out through the operation of the price mechanism.

c. The candidate has provided quite a reasonable answer in relation to two of the three questions, but has made no attempt to identify or analyse the third question, for whom to produce.

d. The candidate has provided a reasonable consideration of a market in a state of equilibrium, but has made no reference to the fact that markets are often in a state of disequilibrium. The maximum mark that can be awarded for such a one-sided answer is five marks.

Exam-style question 2

a. Define the term 'demand'. **[2]**

b. Explain what is meant by an extension in demand **[4]**

c. Analyse **three** factors that could cause a demand curve to shift to the right, other than a change in income. **[6]**

d. Discuss whether a rise in income will always lead to an increase in demand for products. **[8]**

Analysis

✓ In (a), you will need to define the term 'demand' in terms of a consumer being both willing and able to buy a product at a given price at a given period of time

✓ In (b), you will need to explain what is meant by an extension in demand in terms of a rise in the quantity demanded of a product caused by a fall in the price of the product

✓ In (c), you will need to analyse three factors that could cause a demand curve to shift to the right, apart from an increase in income so you should refer to any three from the following: an increase in the popularity of a product, a change in the age distribution of a population in favour of particular products, a rise in the price of substitutes or a fall in the price of complements

✓ In (d), you will need to discuss both a situation in which a rise in income leads to an increase in demand for products if they are normal goods, and a situation where a rise in income does not lead to an increase in demand for products if they are inferior goods

Mark scheme

a. One mark for reference to a consumer being willing and able to buy a product, one mark for reference to a given price at a given period of time **[2]**

b. Up to two marks for an explanation of a movement down a demand curve leading to an increase in the quantity demanded; up to two marks for an explanation of the fact that the extension is due to a fall in the price of a product, with all other possible factors held constant. **[4]**

c. Up to two marks for an analysis of each of three possible factors, such as an increase in the popularity of a product, a rise in the price of substitutes and a fall in the price of complements. **[6]**

d. Up to five marks for a consideration of a rise in income leading to an increase in demand for normal goods; up to five marks for a consideration of a rise in income leading to a decrease in demand for inferior goods. **[8]**

Student answer

(a) The term 'demand' refers to the willingness and ability of a consumer to buy a product. [1 mark]

(b) An extension of demand refers to a movement along a demand curve when there is a change in the price of a product. [1 mark]

(c) A rise in the popularity of a product, such as through a change in the tastes and preferences of consumers, possibly as a result of an advertising campaign, could lead to a shift of the demand curve for a product to the right. A change in the price of other products, such as a change in the price of a substitute, could also cause a demand curve to shift to the right. [3 marks]

(d) A rise in income could lead to an increase in the demand for certain products, but this will not necessarily always be the case. It would be the case for normal goods as a normal good is defined as a good that experiences an increase in demand when incomes rise. This would be the case for most goods, such as clothing or a car. However, it would not be the case for inferior goods. [4 marks]

Total mark: 9/20

Examiner feedback

a. The candidate has referred to demand in relation to the willingness and ability of a consumer to buy a product, but needed to go further and refer to demand at a given price at a given period of time.

b. The candidate has referred to an extension of demand, meaning a movement along a demand curve when there is a change in price, but has not said whether the price has gone up or down and has not made it clear whether the movement along the demand curve is upwards or downwards.

c. The candidate has provided quite a good analysis of the first factor. There is an attempt at an analysis of a second factor, but this is limited by the fact that the candidate has not made it clear whether the change in the price of a substitute is a rise in price or a fall in price. There is no attempt to analyse a third possible factor.

d. The candidate has shown awareness that a rise in income will not always lead to an increase in demand for a product and there is a useful consideration of normal goods: these are defined and two examples of them given. However, although there is a reference to inferior goods, this part of the answer is very limited. Inferior goods are not defined and no examples of them are given.

Exam-style question 3

a. Define the term 'market equilibrium'. **[2]**

b. Explain what is meant by excess demand in a market. **[4]**

c. Analyse the effect of a shift of a demand curve to the right on the equilibrium price and the equilibrium quantity in a market. **[6]**

d. Discuss the difference between a change in demand and a change in the quantity demanded. **[8]**

Analysis

✓ In (a), you will need to refer to a situation where there is no tendency to change and where demand equals supply.

✓ In (b), you will need to explain excess demand in terms of the amount by which demand is greater than supply in a market, giving rise to a situation of market disequilibrium.

✓ In (c), you will need to analyse the effect of a shift of a demand curve to the right, leading to an increase in both the equilibrium price and the equilibrium quantity.

✓ In (d), you will need to demonstrate that you clearly understand that a change in demand involves a shift in a demand curve whereas a change in the quantity demanded involves a movement along a demand curve.

Mark scheme

a. One mark for a reference to a situation where demand equals supply; one mark for a reference to a state where there is no tendency to change. **[2]**

b. Up to two marks for explaining that this refers to a situation where demand exceeds supply at a particular price and at a particular time; up to two marks for explaining that this gives rise to a situation of market disequilibrium when there is a tendency to change. **[4]**

c. Up to three marks for analysing the effect on the equilibrium price; up to three marks for analysing the effect on the equilibrium quantity. **[6]**

d. Up to five marks for demonstrating an understanding of a change in demand; up to five marks for demonstrating an understanding of a change in the quantity demanded. **[8]**

Student answer

(a) The term 'market equilibrium' refers to a situation where demand equals supply. [1 mark]

(b) Excess demand in a market refers to a situation where the price is below the equilibrium price. At this price, the amount demanded is greater than the amount that producers are willing to sell. [2 marks]

(c) When there is a shift of a demand curve to the right, possibly due to an increase in incomes or to a rise in the price of substitutes, there will be a movement upwards along the supply curve, leading to a rise in the equilibrium price. [3 marks]

(d) A change in the demand for a product involves a shift of a demand curve, but a change in the quantity demanded of a product involves a movement along a demand curve. [2 marks]

Total mark: 8/20

Examiner feedback

a. The candidate has referred to a situation where demand equals supply, but there is no reference to the fact that market equilibrium is a state where there is no tendency to change

b. The candidate has explained excess demand in terms of the amount being demanded being greater than the amount being supplied, but there is no reference to the fact that this indicates a situation of market disequilibrium where there will be a tendency to change

c. The candidate has analysed the effect of a shift of a demand curve to the right on the equilibrium price in a market, but there is no reference at all to the effect on equilibrium quantity

d. The candidate has shown an understanding that a change in the demand for a product involves a shift of a demand curve and that a change in the quantity demanded of a product involves a movement along a demand curve, but this is as far as the answer goes. It is a very limited response and needs to be developed more fully. For example, the shift in the demand curve could have been linked to possible changes in the conditions of demand and appropriate examples could have been included. The movement along a demand curve could have been discussed more fully in terms of factors other than price being held constant (the candidate could have referred to ceteris paribus at this point)

Exam-style question 4

a. Define 'price elasticity of supply' [2]

b. Describe **two** determinants of price elasticity of supply. [4]

c. Analyse the significance of price elasticity of supply for a producer. [6]

d. Discuss why price elasticity of supply is more inelastic for agricultural products than for manufactured products. [8]

Analysis

✓ In (a), you will need to define price elasticity of supply correctly, making sure that you refer to the percentage change in price and quantity.

✓ In (b), you will need to describe only two determinants of price elasticity of supply, but both descriptions will need to be thorough in order to gain all four marks.

✓ In (c), you will need to analyse the significance of price elasticity of supply for a producer, stressing that producers will benefit from an elastic price elasticity of supply and will aim to change supply as quickly as possible in response to a change in price. In this situation, their profits will be higher.

✓ In (d), you will need to discuss why price elasticity of supply is more inelastic for agricultural products than for manufactured products: price elasticity of supply will be relatively inelastic for fruit and vegetables because these products cannot be stored for a long period of time and it is also difficult to quickly increase the supply of such products in response to price increases in a short space of time.

Mark scheme

a. Up to two marks for a correct and accurate definition or formula that includes reference to percentage or proportionate changes in both price and quantity. [2]

b. Up to two marks each for two determinants of price elasticity of supply, such as the time period, the ease with which a product can be stored and the cost of increasing supply. [4]

c. Up to three marks for an analysis of elastic price elasticity of supply. Up to three marks for stressing that producers will benefit from an elastic price elasticity of supply and will aim to change supply as quickly as possible in response to a change in price, making their profits higher. [6]

d. Up to five marks for a consideration of price elasticity of supply in relation to the production of agricultural goods, up to five marks for a consideration of price elasticity of supply in relation to the production of manufactured goods. [8]

Student answer

(a) Price elasticity of supply refers to the relationship between a change in the price of a product and a change in the supply of the product. It is calculated by the change in the quantity supplied of a product divided by the change in the price of a product. [1 mark]

(b) One determinant of price elasticity of supply is the time period that a producer has to change supply. Another determinant of price elasticity of supply is the cost involved in bringing about an increase in supply in response to a price change of a product. [2 marks]

(c) Price elasticity of supply is very significant for a producer because if price elasticity of demand is relatively elastic, it will mean that a producer will find it relatively easy to increase supply when the price of a product is increased and this will enable the profits of the producer to be significantly increased. [3 marks]

(d) Price elasticity of supply is relatively inelastic for agricultural products because there can often be quite a long time between planting seeds and having products available to sell to consumers in the market place. Production of agricultural products is also sometimes unpredictable as it can be affected by adverse weather conditions. It may also be difficult to store such products for a long period of time. It may also be difficult to switch factors from one production use to another. [5 marks]

Total mark: 11/20

Examiner feedback

a. The candidate, in both the definition and the formula, has referred to the change in the quantity supplied and the change in the price of the product but has not made it clear that it is the percentage or proportionate changes that are important in the calculation of price elasticity of supply.

b. The candidate has identified two appropriate determinants of price elasticity of supply, but has not really described either of them. The answer needed to be developed more fully.

c. The candidate has linked a relatively inelastic price elasticity of supply to the profitability of a firm, but has not really explained what is meant by an elastic price elasticity of supply and has not expanded the point about being able to increase supply when price increases.

d. The candidate has given quite a useful consideration of why the price elasticity of supply for agricultural products is relatively inelastic but there is no consideration of price elasticity of supply in relation to the production of manufactured products. A one-sided answer, such as this, can gain only a maximum of five marks.

Exam-style question 5

a. Define the term 'private sector'. **[2]**

b. Explain **two** advantages of a market economic system. **[4]**

c. Analyse the differences between a public good and a merit good. **[6]**

d. Discuss the extent to which the existence of information failure can lead to a misallocation of resources in a market. **[8]**

Analysis

✓ In (a), you will need to make it clear that this refers to the part of an economy that is owned by private individuals and organisations and not by the government.

✓ In (b), you will need to clearly explain two advantages of a market economic system, such as the bringing together of buyers and sellers, the provision of competition, coordinated and efficient decision making, and the provision of choice.

✓ In (c), you will need to offer a clear analysis of how a public good can be distinguished from a merit good, with the use of appropriate examples of each.

✓ In (d), you will need to consider the extent to which information failure can lead to a misallocation of resources, paying attention to addressing the 'extent' part of the question and clarifying what is meant by information failure and misallocation of resources.

Mark scheme

a. Up to two marks for a clear and precise definition of the term 'private sector' in relation to it being the part of an economy that is owned by private individuals and organisations, not the government. **[2]**

b. Up to two marks each for an explanation of two advantages of a market system, such as the bringing together of buyers and sellers, the provision of competition, coordinated and efficient decision making and the provision of choice. **[4]**

c. Up to two marks for a consideration of a public good, with appropriate examples, up to two marks for a consideration of a merit good, with appropriate examples; up to two marks for making the distinction between the types of good explicitly clear. **[6]**

d. Up to five marks for a consideration of information failure leading to a misallocation of resources in a market to a large extent; up to five marks for a consideration of information failure leading to a misallocation of resources in a market to a small extent. **[8]**

Student answer

(a) The term 'private sector' refers to that part of an economy that is owned by private individuals, such as the shareholders of a company. [1 mark]

(b) One advantage of a market economic system is that it offers competition between different firms. Another advantage is that it allocates scarce resources in an efficient way. [2 marks]

(c) A public good is one that would be impossible (or virtually impossible) to charge a price for in a market because it would be difficult to exclude those who didn't pay. It is characterised by being non-rival and non-excludable. Examples include police and defence. A merit good is an example of a private good, i.e. it is possible to charge a price for such a good, but a merit good could be provided by both the private sector and the public sector. Examples include education and health care. [4 marks]

(d) Information failure refers to a situation where people lack the full information required for them to make the best consumption decisions. This means that there could be misallocation of resources to a large extent, i.e. resources in an economy are not allocated in the most efficient way. For example, a merit good such as education would be underproduced and underconsumed because people would not understand the full benefits of a good education, both for themselves and for the wider economy. Also, a demerit good, such as cigarettes, would be overproduced and overconsumed because people would not understand all the negative effects of consuming such a good. However, it is not necessarily the case that information failure will always lead to a misallocation of resources and so the extent could be rather small. This is because packets of cigarettes carry health warnings and there is a lot of information provided about the advantages of a person having skills and qualifications, both for themselves and for the wider economy. [6 marks]

Total mark: 13/20

a. The candidate has recognised that private sector refers to ownership by private individuals and has given a useful example of shareholders in a company, but the answer could have gone further, for example by referring to ownership by private organisations and by making it clear that in the private sector the government does not own anything.

b. The candidate has identified two advantages of a market economic system, but has not really explained either of them in any depth.

c. This is quite a good answer, but it could have been improved by expanding the point about it being difficult to exclude people who didn't pay, for example by referring to the free rider problem, and although the answer refers to public goods being non-rival and non-excludable, these terms are not explained.

d. The term 'information failure' is clearly explained and is linked to the idea of a possible misallocation of resources. There is quite a good consideration of the fact that this could lead to a misallocation of resources to a large extent, and then there is a consideration of the alternative point of view, with some appropriate examples, although this section could have been developed more fully. The answer therefore needs to gain a mark above five because both perspectives have been discussed.

Unit 3:
Microeconomic decision makers

Your exam

Microeconomic decision makers is part of paper 1, multiple-choice questions, and paper 2, structured questions. Paper 1 is a 45-minute exam and makes up 30% of the total marks. Paper 2 is a 2-hour 15 minute exam and makes up 70% of the total marks.

Your revision checklist

Tick these boxes to build a record of your revision

Specification	Theme	Tick	Tick	Tick
3.1 Money and banking	3.1.1 Money			
	3.1.2 Banking			
3.2 Households	3.2.1 The influences on spending, saving and borrowing			
3.3 Workers	3.3.1 Factors affecting an individual's choice of occupation			
	3.3.2 Wage determination			
	3.3.3 Reasons for differences in earnings			
	3.3.4 Division of labour/specialisation			
3.4 Trade unions	3.4.1 The role of trade unions in the economy			
	3.4.2 The advantages and disadvantages of trade union activity			
3.5 Firms	3.5.1 Classification of firms			
	3.5.2 Small firms			
	3.5.3 Causes and forms of the growth of firms			
	3.5.4 Mergers			
	3.5.5 Economies and diseconomies of scale			
3.6 Firms and production	3.6.1 The demand for factors of production			
	3.6.2 Labour-intensive and capital-intensive production			
	3.6.3 Production and productivity			
3.7 Firms, costs, revenue and objectives	3.7.1 Definition of costs of production			
	3.7.2 Calculation of costs of production			
	3.7.3 Definition of revenue, calculation of revenue and the influence of sales on revenue			
	3.7.4 The objectives of firms			
3.8 Market structure	3.8.1 Competitive markets			
	3.8.2 Monopoly markets			

You need to know:

- **the forms, functions and characteristics of money**
- **the role and importance of central banks and commercial banks for government, producers and consumers**

Key terms

Money: anything that is widely and generally accepted and exchanged for goods and services

Forms of money: the different types of money used in an economy such as notes and coins

Barter: the direct exchange of products

Double coincidence of wants: the need for two people making a trade to want and be willing to exchange what the other has to offer

Medium of exchange: the ability of money to facilitate making payments for products

Unit of account: the use of money to establish the value of a product

Store of value: the use of money to store wealth

Standard for deferred payments: the use of money to buy a product now and to repay the debt in the future

Common errors

Candidates often confuse money with a means of transferring money. For example a cheque is not money, it is simply a means of transferring money. It is not money because a person can refuse to accept a cheque as a method of payment. Similarly a credit card and a debit card are not money; they are simply a means of transferring money

3.1.1 Money

The forms of money

Money can be defined as anything that is widely and generally accepted and exchanged for goods and services. There are various **forms of money**. Money often refers to notes and coins and to bank accounts and deposits, but in the past it has referred to many other forms, such as cowrie shells.

Before money was used, people would use **barter** to exchange products often in the form of animals such as goats and chickens. This required two or more people to directly exchange products, but was limited by the fact that to work effectively, it required the two people making a trade to want and be willing to exchange what the other had to offer. This was known as a **double coincidence of wants**.

▲ **Figure 42** *Money can come in a variety of different forms, such as cowrie shells*

The functions of money

Money has four functions in an economy

A **medium of exchange**	Money is used as a way to make payments for a product, because it is generally accepted as a means of payment for goods and services
A **unit of account** (also known as a **measure of value**)	The price of a product can be measured in terms of how many units of a currency it is worth
A **store of value** (also known as a **store of wealth**)	Money can be saved because it keeps its value to a large extent (depending on the rate of inflation in a country); saving enables the use of money in the future
A **standard for deferred payments**	Borrowers are able to borrow money and pay it back at a later date; payment can therefore be spread over a period of time, encouraging the use of credit and the expansion of trade

The characteristics of money

Money has a number of characteristics, including the following:

Acceptability	Money has to be generally acceptable in an economy if it is going to be used as a means of buying and selling different products.
Portability	Money needs to be relatively easy for people to carry around if it is going to perform its functions effectively.
Scarcity	Money has to be relatively scarce if it is going to keep its value, otherwise it will become worthless.
Recognisability	Money needs to be easily recognised if people are to retain confidence in it.
Stability of value	Money needs to be relatively stable in value over a period of time if people are going to have confidence in using it.
Divisibility	It must be possible to divide money into smaller parts called denominations, if it is going to be able to carry out its functions effectively.
Durability	Money needs to be relatively hard-wearing over time.

Common error

Candidates sometimes state that a characteristic of money is that it never loses its value, but this is unlikely to be the case as inflation (a period of generally rising prices in an economy) will erode the value of a given sum of money over a period of time.

Common error

Candidates sometimes confuse the functions of money and the characteristics of money.

Recap

- Money can exist in a variety of different forms, such as notes and coins.
- Money has four essential functions to play in an economy: as a medium of exchange, as a unit of account/measure of value, as a store of value/store of wealth and as a standard for deferred payments.
- Money has a number of characteristics, including acceptability, portability, scarcity, recognisability, relative stability of value, divisibility and durability.

Apply

1. Define the term 'money'.
2. List the denominations of money in your country.
3. Explain why money is preferable to barter as a means of exchange.
4. Which of the following is not a function of money?
   - **a.** A means of portability
   - **b.** A medium of exchange
   - **c.** A standard for deferred payments
   - **d.** A store of value

▲ **Figure 43** *Money is now commonly in the form of notes and coins*

Extension

There is a case study of the Chinese currency, the yuan, on page 69 of the Student Book. Money is closely associated with banking, see section 3.1.2.

Key terms

Central bank: the bank responsible for supervising and regulating the banking and financial system in a country

Legal tender: a form of payment that is legally recognised in settling a debt

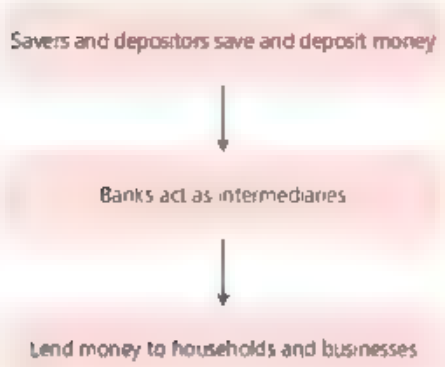
Interest rate: the price paid for borrowing money and the price received for lending money

Monetary policy: a way of influencing an economy through changes in the price and quantity of money

National debt: the total amount of money owed by a government as a result of borrowing

Commercial bank (or **retail bank**)**:** a bank that provides a variety of services to households and businesses

Financial intermediary: the role that a commercial bank plays in linking savers and borrowers



▲ **Figure 44** *A commercial bank acts as a financial intermediary linking savers and borrowers*

3.1.2 Banking

Central banks

Each country has a **central bank** responsible for supervising and regulating the banking and financial system in that country.

A central bank has various functions:

Establishment of financial rules and regulations	A central bank creates rules and regulations to supervise and regulate the banking and financial system, e.g. rules that relate to the setting up of a new bank in a country.
Issues notes and coins	Issues the notes and coins that are used in a country and establishes **legal tender** in relation to them, that is, rules on the acceptance of notes and coins as payment.
Sets interest rates	A central bank will set the main **interest rate** in an economy. This will affect how much money is borrowed. If a central bank wants to encourage borrowing and spending, it will reduce the interest rate. If it wants to discourage borrowing and spending, it will increase the interest rate.
Lender of last resort	If a commercial bank is in need of funds, the central bank can lend money as a last resort. In this way a central bank can help a commercial bank when it needs money.
Supervises monetary policy	One part of **monetary policy** is the price of money and a central bank can supervise this through the setting of the interest rate in an economy. Another part of monetary policy is the quantity of money in an economy at any given time and a central bank is also able to control this.
Banker for the government	A central bank acts as banker for a government, e.g. a government will have accounts with a central bank and its revenue and expenditure will be carried out through these accounts.
Banker for the commercial banks	A central bank acts as banker for the commercial banks, e.g. each of the commercial banks will have accounts at the central bank through which their debts with each other can be settled.
Participation in international financial meetings	A number of financial meetings take place at the international level and representatives of central banks take part in such meetings.
Control of lending	A central bank can influence the amount of lending in an economy, e.g. it can encourage lending to stimulate an economy and discourage lending when prices are rising too quickly.
Management of the national debt	Every government borrows money over a period of time and the total amount of debt is called the **national debt**. The central bank will manage this debt on behalf of a government.

Commercial banks

A central bank is usually owned by the government of a country, but **commercial banks** (or retail banks as they are sometimes called) are usually, but not always, in the private sector. Commercial banks provide a variety of services to businesses and households.

A commercial bank acts as a **financial intermediary**, linking savers and borrowers, as can be seen in Figure 44.

A commercial bank has various functions.

Provision of current accounts	A **current account** is an everyday account into which money can be paid and out of which payments can be made. Such an account will often have a debit card attached to it, facilitating access to cash and making payments easier.
Provision of savings accounts	In addition to a current account, which will usually not pay any interest on deposits, a commercial bank can offer a variety of **savings accounts** that enable customers to save over a period of time.
Lending	Commercial banks can lend money in a variety of different forms, including a loan, an **overdraft** and a **mortgage**. They can also issue a credit card to customers to enable them to borrow money.
Keeping money and documents safe	A commercial bank can keep the money and important legal documents of individuals and businesses safe.
A means of making payments	Commercial banks can provide a number of different ways to make payments, such as through a cheque, a **banker's draft**, a **standing order** or a **direct debit**.
Provision of foreign currency	Commercial banks can obtain foreign currency for their customers to enable them to buy goods and services when they are abroad.
Provision of financial advice	Commercial banks can also provide their customers with financial advice on a range of matters, such as in relation to a will or to the purchase of shares in companies.
Working with the government	Commercial banks work very closely with the government, especially in terms of the level of bank lending.

Key terms

Current account: an everyday account into which money can be paid and out of which payments can be made

Savings account: an account that enables customers to save over a period of time and to receive interest payments to boost the level of savings

Overdraft: a facility whereby a customer can spend more than is in an account, up to a specified limit

Mortgage: a method of borrowing money, usually to buy a property, over a relatively long period of time, e.g. 25 years

Banker's draft: a method of payment, usually used when relatively large sums of money are involved

Standing order: a method of making a regular payment from an account for a fixed amount of money

Direct debit: a method of making a regular payment from an account for a variable amount of money

Recap

- A central bank is responsible for supervising and regulating the banking and financial system in a country.
- Commercial banks carry out a range of services for producers and households.

Practice

1. Write a short summary of the main functions carried out by the central bank of your country.
2. Choose a commercial bank that operates in your country. Describe the main services that it provides to firms and households.

Extension

The role and importance of central banks and commercial banks for government, producers and consumers are covered on pages 70–73 of the Student Book.

You need to know:

- **the influences on spending, saving and borrowing, including income, the rate of interest and confidence, between different households and over time**

3.2.1 The influences on spending, saving and borrowing

The definition of spending, saving and borrowing

It is important to distinguish between these three economic activities.

Spending	Spending refers to the exchange of money for goods and services. It can also be referred to as consumption expenditure. The products may be for immediate consumption, e.g. food, or they may be consumer durables that will last for a relatively long time, e.g. a television.
Saving	Money that is not spent is saved, put aside to finance the purchase of something in the future.
Borrowing	Borrowing is when an individual receives money from another individual or from an organisation, such as a financial institution, with the intention of paying it back, usually with additional interest to be paid.

Influences on spending, saving and borrowing

There are a number of different reasons, or motives, why people decide to spend, save or borrow money.

Behaviour	Influences
Spending	Some money is spent on essential items, e.g. basic foodstuffs. These can be regarded as **needs**. Other money is spent on less essential or non-essential products that can be regarded as **wants**, e.g. a new computer game. Spending on consumer durables enables a person to build up a stock of wealth. The main influence on spending is income – the more income people have, the more they are able to spend. This is certainly true of normal goods, but not of inferior goods. Spending patterns can be influenced by advertising campaigns.
Saving	The main motive for saving is to put money aside to be able to make a purchase at a later date, e.g. to pay for a holiday. A major influence on saving is the rate of interest that financial institutions pay on money deposited in savings accounts with them. The proportion of income that is saved is called the **savings ratio**.
Borrowing	An important motive for borrowing money is to be able to spend more than you receive in income in order to meet your wants and needs. This is especially the case with the purchase of relatively expensive items, e.g. a car. The rate of interest is again an important influence as people will generally be more inclined to borrow money when the rate of interest is relatively low and be less inclined to borrow money when the rate of interest is relatively high. Another influence on borrowing is the confidence of the borrowers to be able to pay back the money borrowed, plus interest, at some point in the future.

Key terms

Needs: items that are essential for human survival, e.g. food

Wants: items that are not essential, e.g. a new television

Savings ratio: the proportion of income that is not spent but saved

Exam tip

Make sure that you are able to discuss the main influences on spending, saving and borrowing in an economy.

Differences in spending, saving and borrowing between different households

A major influence on spending, saving and borrowing patterns between different households is income

Size of income	Spending	Saving	Borrowing
High income households	Unlikely to spend all of their income	Able to save quite a lot of their income	Unlikely to need to borrow money
Middle income households	Likely to spend most of their income	May be able to save a little of their income	Probably need to borrow some money e.g. to buy consumer durables
Low income households	Likely to spend all of their income and this may not even cover all of their needs let alone their wants	Unlikely to be able to save any of their income	Will certainly need to borrow to meet their needs but they may find it difficult to borrow because lenders are uncertain about being repaid. Alternatively they can find a lender but will probably be charged a higher rate of interest

Spending, saving and borrowing over time

Over a period of time, as countries become more industrialised, there is likely to be an increase in spending and saving as incomes rise. Borrowing is also likely to increase as long as the rate of interest charged on borrowing products is not too high and as long as people remain reasonably confident about the future

Recap

- It is important to be able to understand, and to be able to distinguish between, spending, saving and borrowing.
- There are a variety of different influences on spending, saving and borrowing in an economy.
- Patterns of spending, saving and borrowing can vary between different households
- Patterns of spending, saving and borrowing can change over time

▲ **Figure 45** *Increasing industrialisation in China has contributed to rising incomes and this has led to increases in consumer spending*

Questions

1. Distinguish, with the use of examples, between a need and a want
2. Explain what is meant by a country's savings ratio.
3. Which of the following is likely to lead to an increase in the savings ratio?
   - **a.** A decrease in the rate of interest
   - **b.** A temporary lowering of prices in an economy
   - **c.** An increase in borrowing to buy a new car
   - **d.** An increase in the rate of interest

Case study

There is a case study on rising consumption in China on pages 76–77 of the Student Book

You need to know:

- wage and non-wage factors
- the influence of demand and supply, relative bargaining power and government policy, including minimum wage
- how changes in demand and supply, relative bargaining strengths, discrimination and government policy can all influence differences in earnings between workers
- the advantages and disadvantages of division of labour/specialisation for workers, firms and the economy

Key terms

Basic pay: the amount of money that will be received by an employee before any additional payments or any deductions are made

Wage: a form of payment that is usually expressed in terms of per hour, per day or per week

Salary: a form of payment that is usually expressed in terms of a figure for a whole year

Overtime: additional hours worked above the basic contracted number of hours, usually paid at a higher rate e.g. time and a third

Bonus: an extra amount of money paid to an employee, usually for meeting a particular target

Commission: a payment made in proportion to the achievement of a target, e.g. a commission of 10% on all sales made by a person

Earnings: the total amount of money received by an employee once additional payments, such as overtime, bonus and commission, have been added

3.3.1 Factors affecting an individual's choice of occupation

Wage factors affecting an individual's choice of occupation

An individual's choice of occupation can be affected by many different factors. Wage factors can include the following:

Wage factor	Explanation
Basic pay	**Basic pay** refers to the amount of money that will be received by an employee before any additional payments or any deductions are made. This could be in the form of a **wage** paid weekly or an annual **salary**
Overtime	**Overtime** refers to additional hours worked above the basic contracted number of hours. These are usually paid at a higher rate, e.g. time and a third, time and a half or double time
Bonus	A **bonus** is an extra amount of money paid to an employee, usually for meeting a particular target
Commission	**Commission** is when a payment is made in proportion to the achievement of a target, e.g. a commission of 10% on all sales made by a person
Earnings	**Earnings** refer to the total amount of money received by an employee once additional payments, such as overtime, bonus and commission, have been added

▲ **Figure 46** *High wages can encourage people to work in hard and dangerous occupations, such as on an offshore oil platform*

Non-wage factors affecting an individual's choice of occupation

In addition to wage factors, an individual's choice of occupation can be affected by a number of non-wage (non-financial) factors.

Non-wage factor	Explanation
Job satisfaction	Job satisfaction refers to the enjoyment and pleasure that a person gains from working in a particular occupation.
Career prospects	Some people may wish to work in occupations where there are good opportunities for promotion and the enhancement of a career.
Fringe benefits	There are many examples of fringe benefits, including subsidised housing, payment of school fees, a company car, subsidised transport, reduced prices for company products and subsidised meals.
Length of holidays	Some occupations may be more attractive than others because they offer longer than average holidays.
Pension scheme	The pension scheme provided is different for different occupations, especially in the amounts contributed by the employer versus the amount contributed by the employee.
Job security	Some occupations may be regarded as more secure in terms of continued job prospects over a long period of time.
Location	One factor affecting an individual's choice of occupation could be the location of a job, e.g. a job that is relatively close to friends and family.
Working conditions	Occupations may differ in terms of the working conditions of a job, e.g. in terms of health and safety.
Flexi-time	Some jobs offer flexible hours, e.g. starting early and leaving early.

Recap

Both wage factors and non-wage factors can affect an individual's choice of occupation.

Questions

1. Explain what is meant by an overtime payment.
2. Explain, with the use of examples, what is meant by a fringe benefit.
3. Which of the following is an example of a wage factor?
   a. Career prospects
   b. Commission
   c. Flexi-time
   d. Job security

Answers

The different factors affecting an individual's choice of occupation are covered on pages 78–79 of the Student Book.

3.3.2 Wage determination

The influences of demand and supply

Labour is a factor of production and has a price like any other factor. The price of labour is the wage that is paid. This price, just like any other price in a market, is determined by the forces of demand and supply.

Key term

Derived demand: the demand for labour is not for the labour itself, but for the products it can produce

- The demand for labour is not a demand for the labour itself but for what the labour can produce. This is why the demand for labour is known as a **derived demand**. The demand for labour, therefore, comes from producers seeking workers to produce products in combination with the other factors of production.
- The supply of labour consists of the workers able and willing to work and the number of hours they are prepared to work.

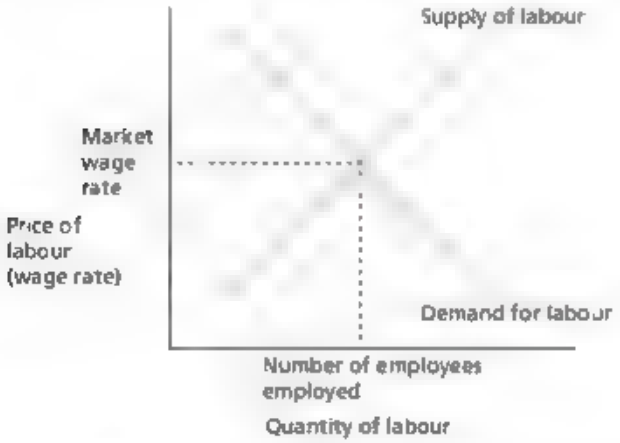
Wage determination

Figure 47 shows how the price of labour, the wage, is determined in a labour market by the interaction of the demand for labour and the supply of labour, producing a market wage rate.

This wage rate will vary between different markets because of the relative strength of the demand and supply factors.

To a large extent, the demand for a particular type of worker is determined by the price of the products that the workers produce, given that the demand for labour is a derived demand. Workers producing more expensive products are likely to receive higher wages than those producing less expensive products. If the demand for products is relatively inelastic, workers producing these products are likely to receive higher wages. If the demand for products is relatively elastic, workers producing these products are likely to receive lower wages.

The supply of labour will be determined by the number of people with the necessary skills, qualifications and experience. When workers with these attributes are scarce, for example, doctors, the supply of labour will be relatively inelastic and these workers are likely to receive higher wages. When workers with these attributes are plentiful, for example, hospital porters, the supply of labour will be relatively elastic and these workers are likely to receive lower wages. When a job requires no skills or qualifications, such as hospital cleaners, the supply of such workers will be extremely elastic and so the wages paid to such workers are likely to be very low.



▲ **Figure 47** *The market wage rate is determined by the intersection of the demand for labour and the supply of labour*

Relative bargaining power

The importance of the elasticity of demand for labour and the elasticity of supply of labour has already been stressed and these elasticities will help to determine the relative bargaining power of different groups of workers in different labour markets.

Elasticity of demand for labour	Elasticity of supply of labour	Relative bargaining power	Wage outcome
Relatively inelastic	Relatively inelastic	Strong	High wages
Relatively elastic	Relatively elastic	Weak	Low wages

Government policy

It has already been stated that a wage is determined by the forces of demand and supply in a market. This assumes that there is no government intervention in such a market. However a government may decide to intervene in a labour market by establishing a **minimum wage**.

Minimum wage: a wage established by a government above the market wage and below which no worker can legally be paid

Minimum wage

A minimum wage is where a particular wage is established by a government above the market wage and it is therefore not possible for an employer to pay an employee a wage below this minimum wage.

A government may decide to do this to reduce the extent of poverty in a country. This policy of a 'fair wage' would improve the standard of living of those workers who had previously been paid below the minimum wage.

The disadvantage to this is that a minimum wage could raise the costs of production for firms so they might decide to employ fewer workers at this higher wage, leading to a fall in the employment rate.

- A wage is a price and, like any other price in a market, is determined by the forces of demand and supply.
- The demand for labour is a derived demand; it is demanded not for its own sake, but for what it can produce.
- Wage rates will be influenced by the relative elasticities of demand for labour and supply of labour.
- A government could decide to intervene in labour markets through the establishment of a minimum wage above the market wage.

Exam tip

Make sure you understand that a minimum wage has to be established above a market wage for it to have any effect on the wages paid to workers.

1. Explain what is meant by a derived demand.
2. Explain what can influence the relative bargaining power of different workers.

The idea of a minimum price in a market is covered in section 2.11.2. The reasons for differences in earnings is covered in section 3.3.3.

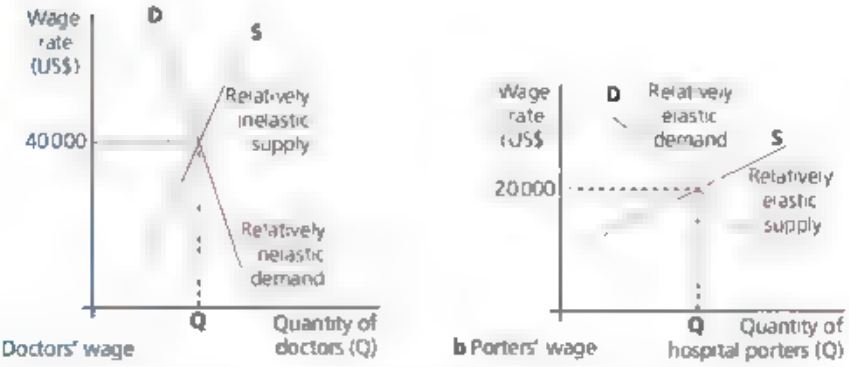
3.3.3 Reasons for differences in earnings

Skilled/unskilled workers

An important reason for differences in earnings between various types of workers is whether they are a skilled or an unskilled worker. Figure 48 shows the relative earnings of doctors and hospital porters.

Common error

Many students answer questions about reasons for the differences in earnings in an economy in a very descriptive way, without clearly relating them to economic theory. Make sure that you refer to the importance of demand and supply and especially the elasticity of demand for, and the elasticity of supply of, different groups of workers.



▲ **Figure 48** *The relative earnings of doctors and hospital porters*

Figure 48 (a) shows that both the demand for and the supply of doctors are relatively inelastic, causing the wage to be relatively high for these skilled workers. In (b) both the demand for and the supply of hospital porters are relatively elastic causing the wage to be relatively low for these unskilled workers.

Key terms

Primary sector: the sector in which workers are employed in the first stage of the production process, such as farming

Secondary sector: the sector in which workers are employed in the second stage of the production process such as manufacturing

Tertiary sector: the sector in which workers are employed in the third stage of the production process, such as teaching

Equal pay legislation: laws that have been passed in favour of equal pay for equal work of equal value

Gender wage gap: the difference in average earnings of male and female workers in an economy

Primary/secondary/tertiary workers

It is important to distinguish between different occupational sectors. The **primary sector** refers to those workers employed in the first stage of the production process, for example, agriculture, fishing, forestry, mining and quarrying. The **secondary sector** refers to those workers employed in the second stage of the production process, for example, manufacturing and construction. The **tertiary sector** refers to those workers employed in the third stage of the production process, such services as education and health care.

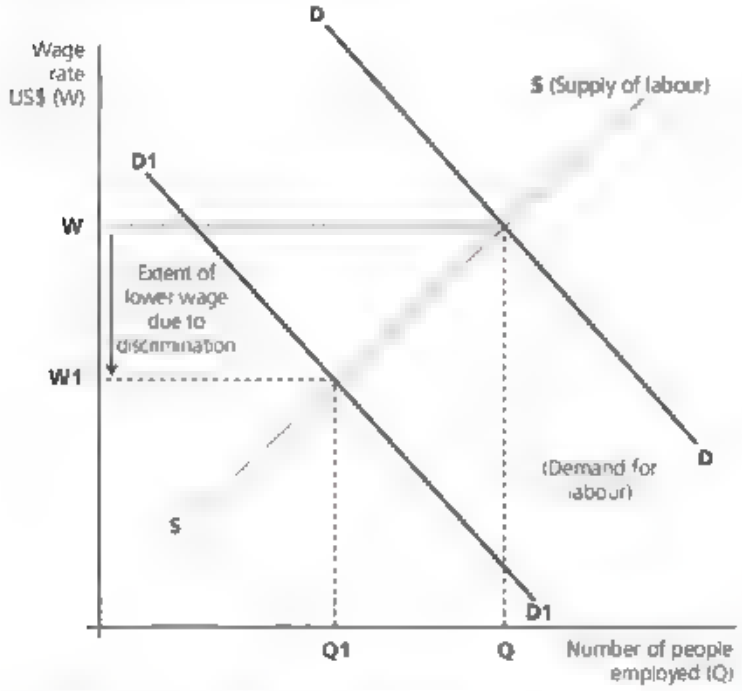
In most countries, the wages paid to workers in the primary sector, such as agricultural labourers, are relatively low, often because such work is unskilled. The wages paid to workers in the secondary sector, such as car workers, are relatively high, often because such work is semi-skilled or skilled. The wages paid to workers in the tertiary sector such as teachers or accountants, are relatively high because usually such jobs require workers to have been educated to degree standard.

Male/female workers

The wages paid to workers should reflect their skills, qualifications and experience, so there should not be a wage gap between male and female workers. However, such a gap does exist, despite the existence of **equal pay legislation** in many countries. This is called the **gender wage gap**.

Of course, if female workers are less skilled, less qualified, less experienced, less likely to be in a trade union and more likely to be in part-time employment compared to men, then it is very likely that they will be paid on average less than men.

However, sometimes the wage differential is not due to these factors but to the existence of **discrimination** in the workplace. Figure 49 shows the existence of discrimination. The wage rate for all employees should be at W, but because of the existence of discrimination against certain workers, the demand curve for these workers shifts to the left, leading to a fall in the wage of these workers to W1.



▲ **Figure 49** *The influence of discrimination on wages*

Private sector/public sector

In many countries, workers in the public sector earn more than those working in the private sector. This difference in earnings between the two sectors is called the **public sector premium**. The reason for the difference is because of the high level of education and professional training required to work in many public sector occupations. Public sector workers are more likely to be members of trade unions compared with those working in the private sector.

Key terms

Discrimination: a situation where one group of workers is treated less favourably than others.

Public sector premium: the difference in earnings between the private sector and public sector, with public sector workers earning, on average, more than private sector workers.

Activity

Analyse why female workers are sometimes paid less than male workers.

Recap

There are many possible reasons for differences in earnings between workers, depending on whether they are:

- skilled/unskilled
- employed in the primary/secondary/tertiary sectors
- male/female
- employed in the private sector/public sector.

Link

The influences of demand and supply on wage determination are covered in section 3.3.2. There is a case study on the relative earnings of doctors and hospital porters on page 82 of the Student Book and a case study on public sector and private sector pay in the United Kingdom on page 83 of the Student Book.

Key terms

Specialisation: the process whereby individuals, firms and economies concentrate on producing those products in which they have an advantage

Division of labour: a situation where workers specialise in specific tasks

Productivity: the output per factor of production per period of time

3.3.4 Division of labour/specialisation

Specialisation

Specialisation can be defined as the process whereby individuals, firms and economies concentrate on producing those products in which they have an advantage. It therefore involves concentrating on a particular task and this should lead to an increase in production as a result of focusing on what is done best.

▲ **Figure 50** *Shoemaking is an example of specialisation. The shoemaker concentrates on producing goods of a very high quality.*

Division of labour

One example of specialisation is in a firm where there is specialisation by job task. For example, in a car factory, people will specialise in carrying out particular specialised tasks.

Division of labour has a number of advantages and disadvantages.

Advantages of division of labour	Disadvantages of division of labour
Increase in skill: by concentrating on a particular task, the worker becomes more skilled. This should lead to an increase in **productivity** – the worker produces a higher output per period of time worked.	Dependency: as a result of division of labour, workers become dependent on other workers carrying out their particular tasks and if these other workers are slow or inefficient, it could have a knock-on effect.
Saving time: specialisation in one task avoids the wastage of time involved in moving from one task to another.	Unemployment: division of labour involves specialising in a particular task. If the demand for people to carry out that tasks falls, such workers could lose their job and may find it difficult to find another similar job.
Concentration on what a worker does best: division of labour enables workers to concentrate on what they are good at, becoming more skilled and experienced in carrying out that task.	Boredom, frustration and alienation: division of labour involves performing the same task day after day and this could lead to monotony and alienation, reducing the level of efficiency and productivity.

Use of supporting technology: dividing up work into specific tasks enables workers to benefit from the application of specific technology, such as particular spreadsheets, in specific task-related situations.	Overconcentration: division of labour involves concentrating on a particular task and a disadvantage of this is that workers will not be able to develop other skills
Possibility of higher earnings: if division of labour enables workers to become more efficient and more productive, they should be better able to negotiate higher wages and salaries.	Affected by industrial action elsewhere in a firm: if there is a strike or another form of industrial action elsewhere in a firm, this will affect all workers throughout the firm.
Higher profits for the firm: division of labour leads to greater efficiency and higher output, and this should lead to higher profits for the firm.	Effect of higher wages for workers: the profits of a firm may not necessarily be higher if the workers are successful in negotiating higher wages arising from the increased output brought about by division of labour
Growth of economy: the wider economy should benefit from the increased productivity of its resources as a result of division of labour	

- Division of labour is an example of specialisation.
- There are a number of advantages and disadvantages of division of labour for workers, firms and the economy

Exam tip

Make sure that you are able to give both the advantages and disadvantages of the division of labour

1. Define the term 'specialisation'
2. Which of the following is an advantage of the division of labour for a worker?
   - **a.** A firm is more profitable
   - **b.** A worker may be able to earn higher wages
   - **c.** A worker may become alienated
   - **d.** A worker will over-concentrate on one task

Specialisation at a national level is covered in section 6.1.1

You need to know:

- **definition of a trade union; the role of trade unions in an economy including engaging in collective bargaining on wages, working hours and working conditions; protecting employment; and influencing government policy**
- **the advantages and disadvantages of trade union activity from the viewpoint of workers, firms and the government**

3.4.1 The role of trade unions in the economy

Trade union: an association of workers formed to protect and promote the interests of its members

Collective bargaining: the process of negotiation between representatives of the workers and representatives of the employers on such issues as pay and working conditions

Definition of a trade union

A **trade union** is an association of workers formed to protect and promote the interests of its members. A trade union is formed, financed and run by its members, who pay an annual subscription.

Collective bargaining

Trade unions negotiate with employers to achieve a range of aims and objectives. This process of negotiation is known as **collective bargaining**. Both sides try to reach agreement on a wide range of issues. This negotiation may take place at a local, regional or national level.

The aims of trade unions

Trade unions have a variety of different aims, as can be seen in Figure 51.

▲ **Figure 51** *The aims of trade unions*

Aim	Explanation
Better working conditions	Trade unions will try to secure the best possible working conditions for their members.
Health and safety	Trade unions will want to ensure that there are clear rules and regulations in place in order to provide an appropriate environment in terms of health and safety.
Better pay	A major aim of trade unions will be to negotiate to obtain the highest possible wages and salaries for their members to protect their standards of living.
Training	Trade unions will want to make sure that employers provide appropriate training for workers, especially in relation to the application of new technology.
Equal opportunities	Trade unions will want to protect the interests of their members in terms of equal opportunities, making sure that there is no discrimination on the basis of gender or ethnicity.
Influence over decisions at work	Trade unions will want to have a say in what goes on in the workplace so will seek to be represented on appropriate committees and councils.
Benefits for members	Trade unions will seek to protect their members, representing them in grievance disputes or in disciplinary procedures.
Shorter working hours	Trade unions will seek to gain favourable terms of employment for their members, e.g. shorter working hours.

Trade union action

If a trade union does not achieve its aims and objectives through negotiation and collective bargaining, it may resort to **industrial action**. This could include:

- a **strike**
- a **go-slow**
- a **work to rule**

Factors influencing the strength of trade unions

Some trade unions are more powerful and more influential than others. This is because of a number of factors, including:

- the number of members
- the proportion of workers in an industry in a particular trade union
- the financial strength of the trade union
- the ability of a trade union to get publicity for its views and actions

Key terms

Industrial action: when workers attempt to disrupt production as a way of influencing employers

Strike: employees stop work so as to exert some influence in an industrial dispute

Go-slow: employees carry out their duties and responsibilities but very slowly

Work to rule: employees work very strictly with the rules set out in a contract of employment

Summary

- Trade unions engage in negotiation with employers on behalf of their members in a process known as collective bargaining.
- Trade unions have a number of aims and objectives, including better pay and better working conditions.
- Trade unions may resort to industrial action if negotiation with the employers is unsuccessful.
- Trade unions vary in terms of their power and influence.

Activity

1. Explain what is meant by collective bargaining.
2. Analyse the factors that determine whether one trade union is more powerful and influential than another.

Cross-reference

The advantages and disadvantages of trade union activity are discussed in section 3.4.2.

3.4.2 The advantages and disadvantages of trade union activity

The advantages of trade union activity

Workers benefit from trade union activity because they are part of a group that will represent them and try to gain them better pay, better working conditions and a range of other benefits.

Firms benefit from trade union activity because it is better to deal with a small number of representatives of many workers rather than deal with workers individually. Once an agreement has been reached with the trade unions, the employers know that usually this agreement will be respected.

A government will benefit from trade union activity because the trade unions have a great deal of information about economic matters so they are in a position to give a government well-informed advice and guidance on the policies it should pursue.

The disadvantages of trade union activity

The disadvantages to workers include the money that they have to pay to be a member; the possibility that they may be forced to join a trade union even if they do not want to (called a **closed shop**); and the possibility that they may be required to go on strike, which may be against their views.

The disadvantages to firms are that if the trade unions negotiate significant wage increases for their members, this will push up the costs to firms and may reduce their profitability. Also, if trade unions call for industrial action, this may close a factory, meaning that the firm will not be able to produce anything.

The disadvantages to the government include the fact that trade unions sometimes have certain political views that are different from the views of the government. Also a number of trade unions may join together to call a general strike, which could seriously threaten the economy.

Key term

Closed shop: a requirement that all employees in a particular workplace must belong to a specific trade union

▲ **Figure 52** *Workers in a trade union in Bangladesh demanding better working conditions in textile factories*

Recap

Trade union activity has a number of advantages and disadvantages for workers, firms and the government.

Activity

Analyse how firms can benefit from trade union activity.

Cross-reference

The role of trade unions in the economy is covered in section 3.4.1.

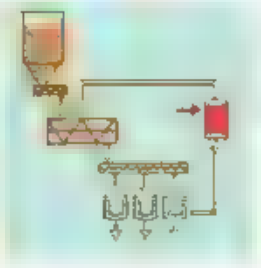
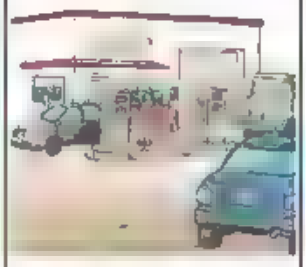
You need to know:

- the classification of firms in terms of primary/secondary/tertiary sectors and private/public sector, and the relative size of firms
- the advantages and disadvantages of small firms, the challenges facing small firms and the reasons for their existence
- internal growth, such as increased market share, external growth, such as mergers
- examples, advantages and disadvantages of different types of mergers: horizontal, vertical and conglomerate
- how internal and external economies and diseconomies of scale can affect a firm or industry as the scale of production changes

3.5.1 Classification of firms

The primary, secondary and tertiary sectors

As we saw in section 3.3.3, firms can be classified according to sector primary, secondary or tertiary. The relationship between these three stages or sectors can be seen in the production of ethanol fuel in Figure 53.

Stage 1: Primary production	Stage 2: Secondary production	Stage 3: Tertiary production
		
Farmers grow sugar cane in Brazil	The sugar cane is refined to make ethanol	The ethanol is sold on service station forecourts to car owners and truck drivers in Brazil

▲ **Figure 53** *The three stages involved in the production of ethanol fuel in Brazil*

The private/public sector

As seen in section 2.9.1, the private sector consists of those firms owned by individuals for profit. It includes sole traders, partnerships and private and public companies. The public sector consists of those firms owned by the government, either through direct ownership or through a public corporation.

The relative size of firms

The relative size of firms can be used as a way of classifying them into small, medium and large firms. Firms can be classified by their relative size in four different ways:

- the number of workers employed by a firm
- the value of output/sales over a period of time, for example, one year
- the percentage share of a market controlled by a firm
- the value of the capital employed by a firm, that is, the value of its assets

Exam tip

Make sure that you are able to clearly distinguish between the three industrial sectors and that you can give appropriate examples of each stage of production.

Common error

Candidates sometimes state that a public limited company is in the public sector, but this is incorrect. It is called a public company because the public can buy shares in such a company, but the company itself operates in the private sector.

▲ **Figure 54** *Indian Railways employs 1.4 million people. It can be classified as a large tertiary sector firm in the public sector.*

Explain the different ways in which the relative size of a firm can be measured

Recap

Firms can be classified in terms of

- the primary/secondary/tertiary sectors
- the private/public sectors
- relative size as measured by the number of employees, the value of output, market share or the value of capital employed

3.5.2 Small firms

In section 3.5.1, it was pointed out that there are a number of methods that can be used in the classification of firms. There is no one agreed definition of a small firm, but as an example it could be described in the following ways

- Number of employees: a small firm might be one employing less than 50 workers
- Value of output: a small firm might be one selling less than US$6.5 million of products in a year.
- Market share: a small firm might be one with less than a 5% share of a market

▲ **Figure 55** *Retailing provides good opportunities for small firms. In India 40% of small firms are retailers that range from street vendors to corner shops*

Key term

Economies of scale: a situation where a larger output can be produced at a lower unit cost

The advantages and disadvantages of small firms

The advantages of small firms	The disadvantages of small firms
They are major employers in an economy	They will usually have limited production capacity and will not be able to meet a large demand for their products
They provide many of the raw materials and component parts for larger firms	Small firms are usually unable to benefit from the cost advantages that large firms have (known as **economies of scale**)
They provide goods and services to the local economy, e.g. local shops can sometimes exist in areas where larger firms do not operate	They can sometimes find it difficult to raise sufficient capital to finance the expansion of the firm
They are usually very flexible and can supply what customers want, providing a quality service based on good relationships with customers. This can make them more effective than large firms	They often do not have access to the research and development facilities that large firms have and this may limit their ability to make use of new technology and limit scope for product innovation
They provide new enterprise and dynamism in an economy	They are likely to be less well known than large firms because they only have a limited marketing budget
They provide opportunities for people who want to work for themselves	

The challenges facing small firms

Small firms face a number of challenges, including

- a lack of capital to finance expansion
- managers who lack the necessary knowledge and experience

- an inability to supply products on a large scale
- an inability to benefit from the cost advantages offered by economies of scale

The reasons for the existence of small firms

There a number of reasons why a firm may be small

- Some small firms have just been set up.
- The owners of a small firm may prefer it to remain small, making it easier to manage
- The size of the market may be small so there is only a limited demand for the firm's products, for example, where a small firm is supplying specialised, niche products
- A small firm may not be able to raise sufficient funds to finance expansion.
- Small firms may be able to receive grants and other forms of financial support from a government
- The firm is providing customers with a service that requires personal attention, for example, hairdressing.
- Small firms are likely to be more flexible in responding to changes in demand.
- Small firms may be more innovative and pioneering
- In some industries, there has been an increase in **contracting out** and small firms may benefit from this.
- A small firm may be more efficient, its labour relations and levels of motivation may be better than in a large firm.

Key term

Contracting out: the transfer of responsibility for the provision of a product from one firm to another

Recap

- A firm can be classified as a small firm using different criteria, such as the number of employees, the value of output and the market share
- Small firms have a number of advantages and disadvantages.
- There are a number of challenges facing small firms
- There are many reasons for the continued existence of small firms in an economy

Question

Explain two advantages and two disadvantages of a small firm.

Cambridge

The classification of firms is covered in section 3.5.1. Economies of scale is covered in section 3.5.5. There is a case study of small and micro enterprises in India on page 92 of the Student Book

Key terms

Internal growth: growth of a firm that comes about through internal expansion (also known as organic growth)

External growth: growth of a firm that comes about by joining together with other businesses

Merger: an agreement between two or more firms to join together to create a single enterprise

Takeover: the purchase of 51% or more of the shares of another firm in order to take over control of that business

Acquisition: a situation where a firm gains control of part of another business

Shareholder: a legal owner of a firm who receives a share of the firm's profits in the form of a dividend

Franchise: an arrangement whereby one firm gives the right to another firm to supply its products

Franchisor: the firm that allows another firm to conduct economic activity using its name and brand

Franchisee: the firm allowed by another firm to conduct economic activity using the other firm's name and brand

3.5.3 Causes and forms of the growth of firms

Reasons for the growth of firms

The growth of firms can come about through **internal growth** or **external growth** such as through a **merger**, a **takeover** or an **acquisition**. Firms may wish to grow in size for a number of different reasons.

- They may be able to reduce the costs of production by benefiting from economies of scale
- They may be able to gain a larger share of a market.
- They may be able to develop new and improved products.
- They may be able to sell to new markets, perhaps in other countries.
- They may become stronger and more secure as a result of growth
- They may be able to increase the profitability of the firm.

Internal growth

Internal growth can come about in a number of different ways:

- reinvesting or ploughing back some of the profits of the firm
- requesting the owners, the **shareholders**, to put in more capital to provide more funds to finance expansion
- operating a **franchise** arrangement where the firm (the **franchisor**) allows another business (the **franchisee**) to use its business idea in return for a share of the profit made by the other business
- opening new stores or retail outlets so that there is a 'rolling out' to multiple outlets under the ownership and control of the firm
- developing e-commerce to allow the firm to create an online trading platform so that a website can be used to expand to a much larger market
- outsourcing to enable the firm to contract out some of its work to another firm which will then make goods or provide services on the firm's behalf

External growth

External growth can come about in a number of different ways.

- There can be a merger with another firm to form a single business.
- There can be a takeover of another firm
- There can be an acquisition of part of another firm.

A comparison of internal and external growth

An advantage of internal growth is that it enables the owners to keep control of the business. However, a disadvantage is that it can be a slow process.

An advantage of external growth is that it enables more rapid growth and allows a firm to gain skills and knowledge that it may not possess. Another advantage is that by joining with another firm (or firms) in some way it could be associated with existing well-known brands, acquire new inventions and new technologies and be able to break into new markets. However, a disadvantage of external growth is that it may be risky – the firm may be joining with another firm that it does not necessarily know very much about.

Exam tip

Make sure that you are able to distinguish clearly between internal and external growth using appropriate examples of each to support your answer.

Recap

- There are a number of reasons why a firm may decide to increase in size.
- The expansion in the size of a firm can be as the result of internal or external growth.
- Internal and external growth each have advantages and disadvantages.

Questions

1. Explain why a firm might wish to grow in size.
2. Which of the following is an example of internal growth?
   - **a.** Acquisition
   - **b.** Franchise
   - **c.** Merger
   - **d.** Takeover

Activity

There is a case study of the growth of a firm on page 94 of the Student Book.

3.5.4 Mergers

The external growth of firms can take place through various forms, as shown in section 3.5.3. These different forms, including a merger, a takeover and an acquisition, are examples of integration. There are different types of integration, including the following:

Type of integration	Advantages and disadvantages
Horizontal	Two or more firms join together at the same stage of production. An example would be two commercial banks joining together. An advantage of such integration is that the new firm could gain cost advantages as a result of the economies of scale available to it. A disadvantage is that the firm could become too large and suffer cost disadvantages as a result of diseconomies of scale.
Forward vertical	Two or more firms join together at different stages of production. When the vertical integration is forward, a firm will merge with another firm at a later stage of production. An example would be a car manufacturer merging with a firm with car showrooms. An advantage of such integration is that a firm is able to own retail outlets selling its products. A disadvantage is that the management of a firm at different stages of production may become more difficult.
Backward vertical	Two or more firms join together at different stages of production. When the vertical integration is backward, a firm will merge with another firm at an earlier stage of production. An example would be a tea producer merging with a tea plantation. An advantage of such integration is that a firm is able to gain control over its supply of raw materials. A disadvantage, as with forward vertical integration, is the possibility of management problems.
Conglomerate	Two or more firms from different industries join together. An example would be a steel producer taking over a tea producer. An advantage of such integration is that the firm will be able to diversify its operations in different industries, reducing the element of risk. A disadvantage is that it could be very difficult to coordinate the operations of economic activities in completely different industries.

▲ **Figure 56** *An example of backward vertical integration where a tea producer takes over tea estates*

Activity

Distinguish, with the use of examples, between forward vertical integration and backward vertical integration.

Signpost

The external growth of firms was covered in section 3.5.3. Economies of scale and diseconomies of scale are covered in section 3.5.5. There is a case study on the merger between Tata and Tetley on page 96 of the Student Book.

Recap

There are four different types of integration:

- horizontal
- forward vertical
- backward vertical
- conglomerate.

3.5.5 Economies and diseconomies of scale

Economies of scale

In an economy of scale a larger output can be produced at a lower unit cost. This can be seen in Figure 57 where the average cost of production is reduced as the output is increased in the long run. The long run is a period of time when all factors of production used in the production process can be changed. To begin with, the average cost is C1 and the quantity is Q1. As the output increases to Q2, the average cost falls to C2. When the quantity is Q3, the average cost is C3.

These economies can be of two types.

- **internal economies of scale:** the cost advantages that a particular firm gains from its own increase in output
- **external economies of scale:** the cost advantages that all firms in an industry gain.

Key terms

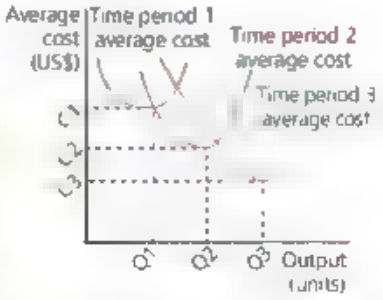
Internal economies of scale: the cost advantages that a particular firm gains from its own increase in output

External economies of scale: the cost advantages that all firms in an industry gain

Internal economies of scale

There are many different types of internal economies of scale.

Internal economy	Explanation
Technical	Large firms can benefit from better techniques of production, such as the use of automated equipment.
Financial	Large firms usually find it easier and cheaper than small firms to borrow money because large firms are regarded as safer to lend to. The rate of interest charged will usually be lower to reflect the greater security.
Managerial	Large firms are able to recruit the best managers available as a result of the salaries that they can afford to pay, and this should lead to a greater level of efficiency.
Commercial	Large firms are able to take advantage of bulk buying, obtaining substantial discounts for bulk purchases.
Risk spreading	Large firms can spread their risks in various ways, including product diversification, market diversification, supplier diversification and production diversification.



▲ **Figure 57** *Economies of scale occur as the output is increased, lowering the average cost of production*

External economies of scale

There are also many different types of external economies of scale.

External economy	Explanation
Transport	Improved transport links, such as a new airport, will improve transport links for all firms in an area, cutting distribution costs.
Education	Improved educational facilities, such as local colleges providing courses that are relevant to the local economy, will benefit all firms in the area.
Suppliers	Ancillary firms will become established to provide the necessary components to all firms in the area.
Amenities	Improved housing and social amenities will encourage workers to move to the area, providing a pool of labour that all firms can call on.
Associated services	The development of appropriate banking and insurance services that will be of benefit to all firms.

Key terms

Diseconomies of scale: a situation where a larger output is produced at a higher unit cost

Internal diseconomies of scale: the cost disadvantages that a particular firm experiences from its own increase in output

External diseconomies of scale: the cost disadvantages that all firms in an industry experience

Diseconomies of scale

Whereas economies of scale refer to the lowering of average costs, **diseconomies of scale** refer to the increase of average costs. As with economies of scale, diseconomies of scale are of two types:

- **internal diseconomies of scale:** the cost disadvantages that a particular firm experiences from its own increase in output
- **external diseconomies of scale:** the cost disadvantages that all firms in an industry experience

Internal diseconomies of scale

There are many different types of internal diseconomies of scale.

Internal diseconomy	Explanation
Management problems	If a firm grows too large, management of the firm may become less effective
Technical problems	A large firm may also experience technical problems as it buys new capital equipment
Failure to sell output	If a large firm is producing more that it can sell, the proportion of advertising costs may become too high, increasing the average cost of production
Industrial relations disputes	Industrial relations disputes, such as strikes, are more likely to occur in large firms

External diseconomies of scale

There are also many different types of external economies of scale.

External diseconomy	Explanation
Cost of labour and other factors	It is possible that as an industry grows, the cost of labour could increase as the supply of skilled, specialised labour reduces. The cost of land may also increase as demand exceeds supply, pushing up rents.
Congestion	There will be an increase in transport, increasing congestion, leading to higher transport costs as journey times are increased
Pollution	There may also be increased pollution, both in terms of noise pollution and air pollution
More expensive housing	The cost of housing may increase, putting workers off relocating to an area

Recap

- Internal and external economies of scale will lead to a reduction in the average cost of production
- Internal and external diseconomies of scale will lead to an increase in the average cost of production

Question

Distinguish, with the use of examples, between internal economies of scale and external economies of scale.

You need to know:

- **influences to include the demand for the product, the price of different factors of production, their availability and their productivity**
- **the reasons for adopting the different forms of production and their advantages and disadvantages**
- **the difference between, and influences on, production and productivity**

3.6.1 The demand for factors of production

The demand for factors of production is determined by a number of influences, including the following:

The demand for the product	Factors of production (land, labour, capital and enterprise) are not demanded for their own sake, but for what they can contribute to the production process (see section 3.3.2). This gives rise to the idea of a derived demand and is why the demand for factors of production is influenced by the demand for the product produced.
The price of different factors of production	The price of a factor of production, just like any other price is determined by the forces of demand and supply that will establish an equilibrium price of the different factors.
The availability of different factors of production	A market will not only establish an equilibrium price of the different factors of production but will also establish an equilibrium quantity.
The productivity of different factors of production	The productivity of a factor refers to the output produced per factor of production per period of time and the demand for the more productive, more efficient, factors will be greater than the demand for the less productive factors. For example, if capital is more productive than labour, firms will adopt capital-intensive rather than labour-intensive methods of production.

Exam tip

Remember that factors of production are demanded not for their own sake, but for what they can contribute to the production process – they are examples of derived demand.

Explain what can influence the demand for factors of production.

Derived demand is covered in section 3.3.2. Labour-intensive and capital-intensive production are covered in section 3.6.2. There is a case study on the production of uranium on page 100 of the Student Book.

Key terms

Labour-intensive production: a production process that uses a relatively high proportion of labour

Capital-intensive production: a production process that uses a relatively high proportion of capital

3.6.2 Labour-intensive and capital-intensive production

There are two different forms of production. In **labour-intensive production** a high proportion of labour is employed in the production process compared with the amount of capital used. In **capital-intensive production** a high proportion of capital is employed in the production process compared with the amount of labour used.

Labour-intensive production

In a country with a large population there will be many workers so labour will be cheap. Labour-intensive production is advantageous for small firms that are too small to afford lots of capital equipment. However, output will be lower than that from a capital-intensive form of production. Workers may make mistakes or engage in industrial action.

Capital-intensive production

Production is likely to be on a large scale, allowing for high levels of automation. The production process is more efficient, unaffected by human error or industrial action. There is a lower unit cost for a large output. However, the initial cost of buying capital equipment can be high and there is an ongoing cost for maintenance. Over time the capital equipment will wear out and need to be replaced.

▲ **Figure 58** *An example of labour intensive production is the textile industry in Bangladesh*

Exam tip

Make sure that you are able to demonstrate an understanding of the reasons why one firm may be labour-intensive and another capital-intensive.

Recap

- In labour-intensive production a high proportion of labour is employed in the production process compared with the amount of capital used.
- In capital-intensive production a high proportion of capital is employed in the production process compared with the amount of labour used.
- Both types of production have advantages and disadvantages.

Apply

Analyse why one firm might decide to use a labour-intensive form of production and another a capital-intensive form of production.

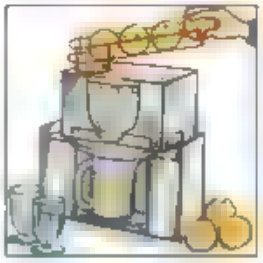
Link back

The demand for factors of production, such as labour and capital, is covered in section 3.6.1.

3.6.3 Production and productivity

Production

Production refers to the process of making products. A product can be a good or a service. Each stage of the production process adds value to the good or service being produced. Figure 59 shows this in relation to the production of fresh orange juice.

Stage of production:	How value is added	Stage of production:	How value is added
1 Growing the oranges 	Farmers look after the orange trees for several years before the trees give fruit. Each year the trees must be treated against pests.	3 Preparing the oranges 	The juice is squeezed from the oranges and ice is added.
2 Transporting the oranges 	Fresh ripe oranges are transported closer to market.	4 Serving the customer 	The juice is presented to the end consumer in a polite and friendly way.

▲ **Figure 59** *How value is added at each stage of the production process of fresh orange juice*

Influences on production

There are a number of possible influences on production.

- Production can be increased by employing more factors, if the factors of production are available.
- Production can also be increased by an improvement in the quality or productivity of factors.
- Natural factors, such as climate and soil, can increase production in agriculture.
- The discovery of new sources of metals, oil and gas is important to industries such as oil and gas extraction and refining.
- Advances in **technology** can lead to quicker and more efficient production methods.
- Improvements in the **infrastructure**, such as better transport facilities, can lead to greater output.
- Government policies can influence production, such as a change in taxation or a change in policies on education and health care.

Technology: systems and devices that are the result of scientific knowledge being used for practical purposes

Infrastructure: the facilities, services and installations needed for the functioning of an economy, such as transport and communication systems

Productivity

Whereas production refers to the total amount or the total value of what has been produced, productivity refers to the output per factor of production per period of time. Productivity can be measured either through the physical output method, such as how many units have been produced per machine or per labour per hour, or through the revenue output method, the money value of the output per machine or per labour per hour.

Common error

The terms 'production' and 'productivity' are often confused by candidates. Make sure you understand that production refers to the output produced by combining the factors of production, while productivity refers to the efficiency in the use of an input in terms of what it has achieved per hour or per day.

Influences on productivity

There are a number of possible influences on production.

- Improvements in technology can increase the productivity of factors of production.
- Improvements in education and training facilities can improve the skills of workers, making them more productive.
- The quality and quantity of raw materials available can influence levels of productivity.
- Effective management and organisation can improve the productivity of land, labour and capital by increasing the output per input per period of time.
- The culture of a firm can influence productivity, such as the use of 'kaizen', or continuous small improvements, in Japanese firms.

Recap

- Production is the use of economic resources to contribute to the creation of a final product.
- Productivity is the output per factor of production per period of time.
- Productivity can be measured either through the physical output method or the revenue output method.

Explain the difference between production and productivity.

An example of different stages of production is given in section 3.5.1. There is an example of how the productivity of a worker can be measured on page 105 of the Student Book.

You need to know:

- **total cost, average total cost, fixed cost, variable cost, average fixed cost, average variable cost**
- **how to calculate total cost, average total cost, fixed cost, variable cost, average fixed cost and average variable cost; how to draw and interpret diagrams that show how changes in output affect costs of production**
- **definition of revenue, calculation of total revenue and average revenue, and the influence of sales on revenue**
- **survival, social welfare, profit maximisation and growth**

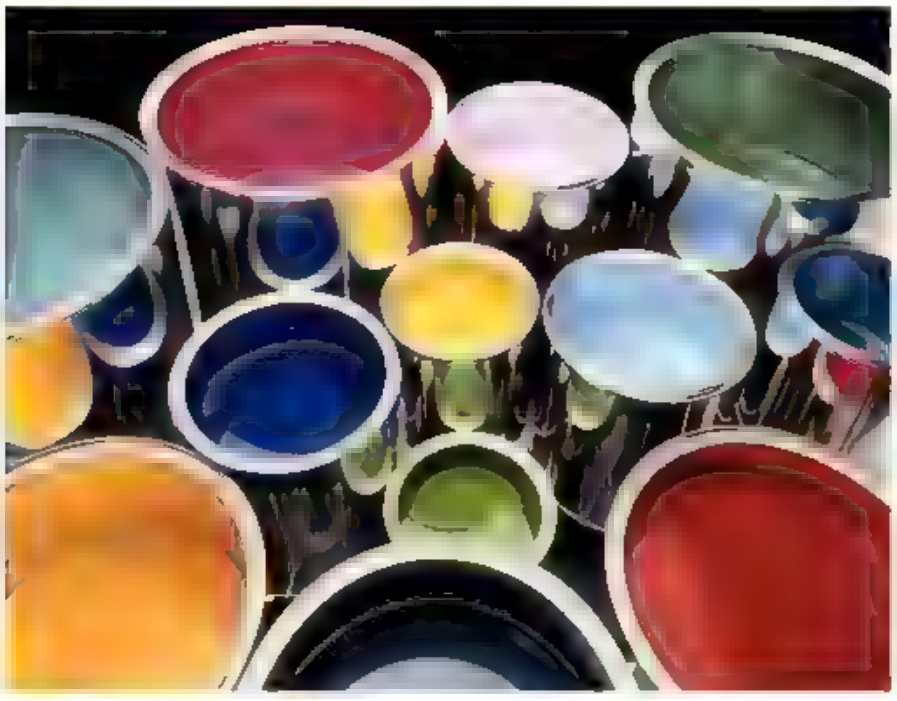
3.7.1 Definition of costs of production

There are some important terms that you need to understand

Cost of production	Definition
Total cost	The sum of total fixed cost and total variable cost at different outputs
Average total cost	The total cost divided by the level of output
Fixed cost	The costs that have to be paid such as the cost of interest whether a business is producing anything at all, they do not alter with the quantity of output
Variable cost	The costs such as the cost of raw materials that are zero when output is zero and that rise with output, they increase directly with the quantity of output
Average fixed cost	The total fixed cost divided by the level of output
Average variable cost	The total variable cost divided by the level of output

Exam tip

You do not need to know the term 'marginal cost'



▲ **Figure 60** *The manufacture of paint includes both variable costs, such as the cost of the tins, and fixed costs, such as the cost of interest payments on money borrowed*

Exam tip

Make sure that you understand the differences between the various types of cost of a firm

Which of the following is an example of a variable cost?

a. Interest
b. Rates
c. Raw materials
d. Rent

The calculation of costs of production and the use of diagrams to show how changes in output affect costs of production are covered in section 3.7.2.

Recap

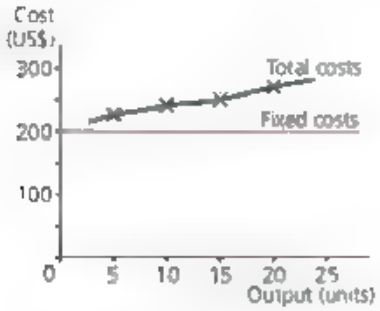
The costs of production of a firm include:

- total cost
- average total cost
- fixed cost
- variable cost
- average fixed cost
- average variable cost.

3.7.2 Calculation of costs of production

Total cost

Total cost is calculated by adding all the fixed and variable costs at different levels of output. This can be seen in Figure 61. The fixed costs stay constant at US$200, whatever the level of output, but the total costs rise as output increases because the variable costs are added to the fixed costs at each level of output.



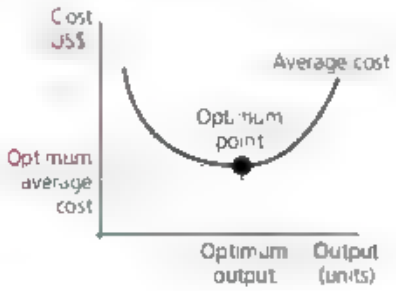
▲ **Figure 61** *The total cost of production increases with an increase in output*

Average total cost/average cost

Key term

Optimum: the most efficient position

Average total cost is also known as average cost. It is calculated by dividing the total cost by the level of output produced by a firm. This can be seen in Figure 62. At low levels of output, average cost falls until it reaches its lowest point. This is known as the **optimum**. As output increases beyond this point, average cost rises. This is why an average cost curve has a characteristic U-shape.



▲ **Figure 62** *The shape of a firm's average cost curve*

Fixed cost

Fixed costs do not alter with the quantity of output, such as rent, rates and interest. A firm's fixed cost is calculated by adding together all of these costs. This can be seen in Figure 63. It is shown as a horizontal straight line.

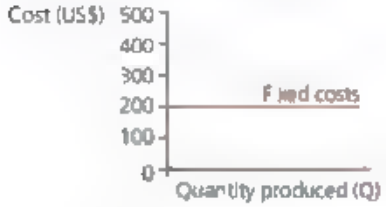


Figure 63 *The fixed costs of a firm as output increases*

Variable cost

The variable costs do alter with the quantity of output, such as the cost of raw materials or component parts. A firm's variable cost is calculated by adding together all these costs. This can be seen in Figure 64. The variable cost curve rises, showing that the costs of buying raw materials increases as output increases.

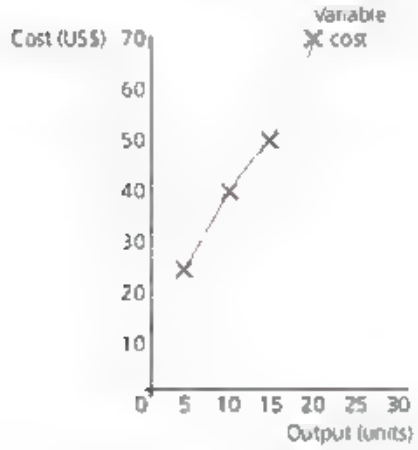


Figure 64 *The variable costs of a firm as output increases*

Average fixed cost

The average fixed cost shows how fixed costs change as the output of a firm is increased. It is calculated by dividing the total fixed costs of production by the number of units produced. The greater the output of a firm, the more the fixed costs will be spread over the output. This can be seen in Figure 65. The average fixed cost curve will fall very steeply to begin with at relatively low levels of output, but will fall more slowly at relatively high levels of output.

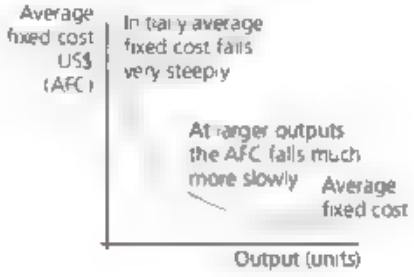


Figure 65 *The shape of a firm's average fixed cost curve as output is increased*

Average variable cost

The average variable cost shows how variable costs change as the output of a firm is increased. It is calculated by dividing the total variable costs of production by the number of units produced. The average variable cost curve, like the average cost curve, is J-shaped. This can be seen in Figure 66. Initially, at relatively low levels of output, the average variable cost curve falls, but as output is increased, the resources are combined less efficiently and the curve starts to rise.

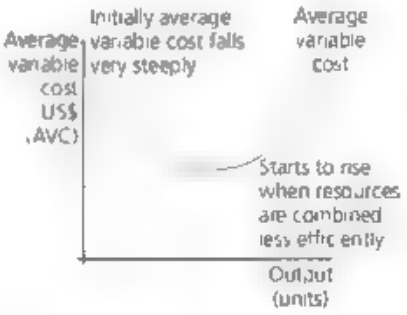


Figure 66 *The shape of a firm's average variable cost curve as output is increased*

- You need to be able to calculate total cost, average total cost, fixed cost, variable cost, average fixed cost and average variable cost
- You need to be able to draw appropriate diagrams to show how changes in the output of a firm affects the costs of production

Explain the shape of the average fixed cost curve

There are case studies on firms' costs on pages 107, 109, 110 and 111 of the Student Book

Total revenue: the average revenue multiplied by the number of units sold, the total receipts received by a firm from its selling activities

Average revenue: the average receipt received by a firm from the number of units sold; it is the price charged per unit of a product

3.7.3 Definition of revenue, calculation of revenue and the influence of sales on revenue

Definition of revenue

Revenue is the money a business receives for making sales. **Total revenue** is the total money received by a firm from selling what it has produced. **Average revenue** is the price charged by a firm when selling various units.

Calculation of total revenue and average revenue

Total revenue (TR) is calculated by multiplying the quantity of products sold (Q) by a firm by the price that each one is sold for (P).

$TR = Q \times P$

Average revenue (AR) is calculated by dividing total revenue (TR) by the quantity sold.

$AR = TR/Q$

The influence of sales on revenue

Figure 67 shows the influence of the sales of a firm on the revenue received. The equilibrium price and the equilibrium quantity are determined in the market for footballs by the intersection of the demand and supply curves. The equilibrium in the market is shown at A. The market price of 0P is US$10. The equilibrium quantity is 1000 footballs. The area shown by 0PAQ indicates the total revenue received. The total revenue received by a firm will rise in proportion to the number of units sold in a market.

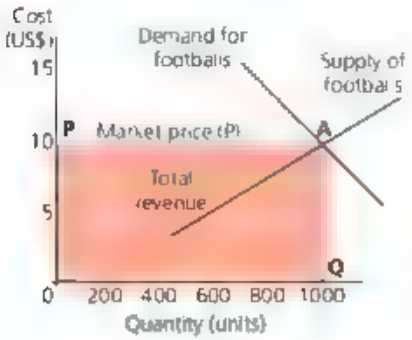


Figure 67 *The total revenue received for selling footballs in a market*

Distinguish between total revenue and average revenue

Recap

- You need to be able to calculate total revenue and average revenue
- You need to understand the influence of sales on the revenue of a firm.

Page 113 of the Student Book contains data on the influence of sales on the revenue of a firm.

3.7.4 The objectives of firms

Firms can have a number of different possible objectives including:

- survival
- social welfare
- profit maximisation
- growth.

Survival

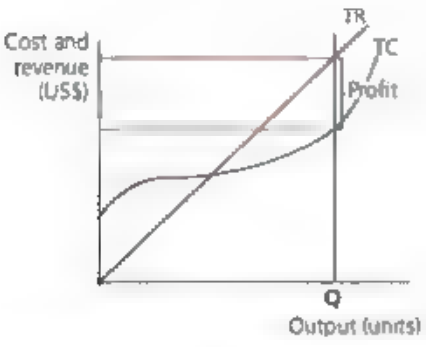
One objective of firms, especially when they have just been established, is survival. New firms may take a while to build up a large customer base.

Social welfare

A firm may wish to make a positive contribution to society in terms of its ethical or environmental behaviour and goals. There are many not-for-profit firms that have social, community or charitable aims. These aims can be expressed in a policy statement on **corporate social responsibility** (CSR).

Profit maximisation

Profit can be defined as the reward for taking risk. It is the amount of money that remains after all costs have been subtracted from the revenue received by a firm. Many firms will have not just profit as their main objective, but **profit maximisation**. The profit maximising output for a firm is where there is the greatest difference between total revenue and total cost. This can be seen in Figure 68.



▲ **Figure 68** *Profit maximisation occurs where there is the greatest difference between total revenue and total cost*

Key terms

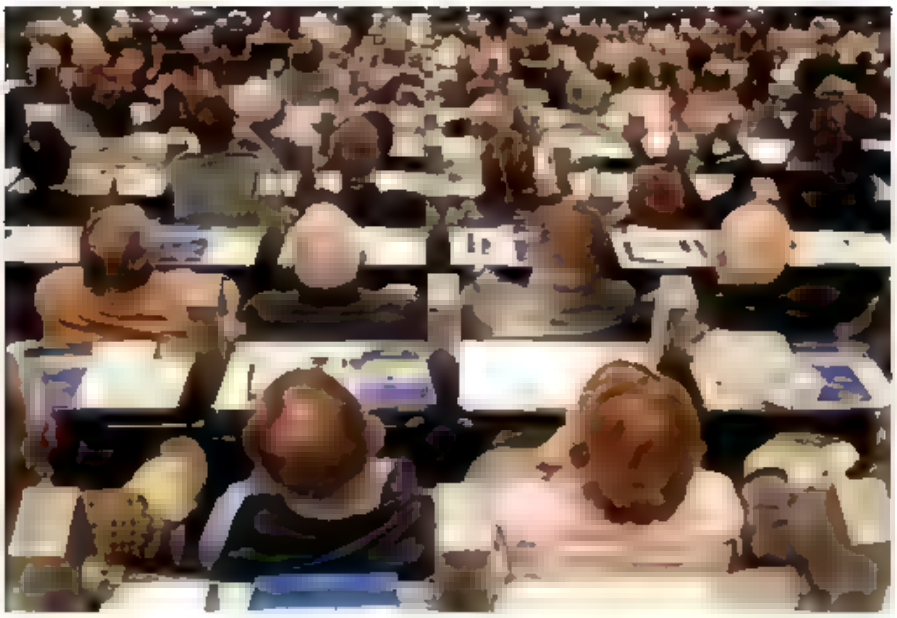
Corporate social responsibility (CSR): a business model that helps a firm be socially accountable to itself, to its stakeholders and to wider society

Profit: the amount of money that remains after all costs have been subtracted from the revenue received by a firm

Profit maximisation: the output for a firm where there is the greatest difference between total revenue and total cost

Exam tip

Make sure that you are able to explain what is meant by profit maximisation



▲ **Figure 69** *Shareholders in a firm, such as Tata, receive a share of the profit made by the firm in the form of a dividend*

Common error

Many candidates seem to think that profit maximisation is the only objective that a firm can have, but firms can have other objectives

Growth

Another possible objective of a firm is growth. Instead of distributing profit to shareholders in the form of a dividend, the money is ploughed back, or reinvested, into the firm in order to finance its expansion.

Recall

Firms can have a number of objectives including

- survival
- social welfare
- profit maximisation
- growth

Apply

Explain what is meant by profit maximisation

Activity

There is a case study on profit maximisation on pages 114–115 of the Student Book

You need to know:

- the effect of having a high number of firms on price, quality, choice and profit
- characteristics, advantages and disadvantages of monopoly

3.8.1 Competitive markets

Perfect competition

The theory of perfect competition is based on a number of assumptions.

- A high number of firms are competing with each other in the market
- There are many buyers, as well as sellers, in the market
- Each firm produces an identical, uniform or homogeneous product
- There is perfect knowledge in the market, with everybody knowing what other firms are producing and selling, and at what price
- There are no barriers to entry into the market
- There are no barriers to exit from the market
- Each firm is a **price taker**, that is, it accepts whatever price is determined by the forces of demand and supply in the market
- There are no transport costs
- Firms aim to maximise profits.
- All producers have access to the same technology

The effects of competitive markets

A high number of firms in a competitive market will have effects on price, quality, choice and profit.

Price	The price of products will be determined by the market forces of demand and supply. Each firm in the market is a price taker and will be unable to influence this price.
Quality	There are many buyers, as well as sellers, in a competitive market, so producers will need to ensure that the quality of the products is of a good standard. Otherwise, consumers will 'vote with their feet' and buy the products from an alternative firm.
Choice	As there are many sellers in a competitive market, buyers will have a great deal of choice over which firm they wish to buy products from.
Profit	An assumption of a competitive market is that firms are aiming to maximise profits. In the short run, a firm could make supernormal or subnormal profits, but in the long run a firm in a competitive market can only make a **normal profit**.

The theory or model of competitive markets has been criticised by some people for being rather unrealistic, but it is very helpful as a guide to how buyers and sellers would behave in a competitive market.

Recap

- The theory of competitive markets is based on a number of assumptions.
- The effect of having a high number of firms in a market can be seen in terms of price, quality, choice and profit.

▲ **Figure 70** *There is a competitive market for grain with many buyers and sellers of an almost identical product.*

Key terms

Price taker: a firm in a perfectly competitive market has to accept the price that is determined by the forces of demand and supply in a market and cannot influence that price.

Normal profit: the level of profit that a firm requires to keep operating in a particular market.

Exam tip

Competitive market diagrams are not required.

Question

Describe the assumptions of a competitive market.

Connect

The characteristics of monopoly markets are covered in section 3.8.2.

3.8.2 Monopoly markets

Monopoly markets have a number of characteristics.

- There is only one firm in the industry and it controls the market.
- It is extremely difficult, if not impossible for new firms to enter the industry.
- The monopoly firm is a price maker, influencing the price in the market through its dominant position.
- The monopoly firm can make profits over and above normal profit in both the short run and the long run, these are called **supernormal profits**.
- As the only supplier in a market, a monopolist can decide the price or the output in the market, but not both.
- There are no substitutes for the product.
- The monopoly firm aims to maximise profits.

Key terms

Supernormal profit: a level of abnormal profit that is larger than normal profit.

Natural monopoly: a situation where it would be better to have one producer, avoiding the wasteful duplication of resources.

Exam tip

Monopoly diagrams are not required.

Advantages of monopoly	Disadvantages of monopoly
When a monopoly firm is run by the government in the public sector, the firm or industry can be run in the national interest, e.g. water supply.	A monopoly firm could use its dominant position in a market and the absence of competition, to restrict output, limiting the number of products available for consumers to buy.
Some economic activities could be regarded as an example of a **natural monopoly** and in this situation, any form of competition would be wasteful as it would lead to a duplication of resources, e.g. if there were two railway companies operating on the same route.	A monopoly firm could use its dominant position in a market to raise prices, making the products more expensive for consumers, and possibly pushing some consumers out of the market (a monopolist could influence output or price, but not both).
A monopoly firm, given its large size, could benefit from economies of scale reducing its cost of production and allowing it to charge a lower price to consumers.	A monopoly firm could lower its cost of production, but there is no guarantee that it would then decide to charge a lower price to consumers, it might decide instead to increase its profits.
A monopoly firm will make a supernormal profit, and these large profits could be used to finance extensive research and development, improving the quality of the products sold.	The quality of the product provided by the monopolist might be poor because of the lack of competition in the market.

Common error

Some answers to questions on monopoly concentrate only on the disadvantages. If you are asked to discuss monopoly markets, make sure you give a balanced response that deals with both the advantages and disadvantages.

Describe two characteristics of monopoly.

Recap

- Monopoly markets have a number of key features and characteristics.
- A monopoly can have a number of advantages and disadvantages.

Exam-style question 1

a. Define the term 'money'. **[2]**

b. Explain what is meant by money having a function as a standard for deferred payment. **[4]**

c. Analyse **three** roles played by a central bank in an economy. **[6]**

d. Discuss how important commercial banks are in an economy. **[8]**

Analysis

✓ In (a), you will need to clearly define the term 'money' in terms of it being anything that is generally accepted for the payment of goods and services.

✓ In (b), you will need to focus on one of the four functions of money: its function as a standard for deferred payment.

✓ In (c), you will need to analyse and not simply describe the role played by a central bank in an economy.

✓ In (d), you will need to discuss the importance of commercial banks in an economy. The command word is 'discuss', so you will need to consider just how important commercial banks are.

Mark scheme

a. One mark for stating that money is anything that is widely and generally accepted in an economy; one mark for stating that money is exchanged for goods and services. **[2]**

b. Up to two marks for an explanation of the use of money to buy a product now and to repay the debt in the future; up to two marks for an explanation that payment can therefore be spread over a period of time, encouraging the use of credit and the expansion of trade. **[4]**

c. Up to two marks each for an analysis of three roles played by a central bank in an economy. **[6]**

d. Up to five marks for the view that commercial banks are very important in an economy, up to five marks for the view that commercial banks are not very important in an economy. **[8]**

Student answer

(a) Money is anything that is widely and generally accepted in an economy [1 mark]

(b) Money as a standard for deferred payment means that borrowers are able to borrow money today and pay it back at a later date. [2 marks]

(c) One role that a central bank can play in an economy is the supervision of monetary policy. Another role is that it can act as a lender of last resort to the commercial banks. A third role is that it can manage the national debt on behalf of the government. [3 marks]

(d) Commercial or retail banks are very important in an economy. They are able to lend money to customers in different ways, such as through a loan, an overdraft or a mortgage. They can provide a current account to customers. They can keep the money of customers, both individuals and firms, safe. They can provide facilities for payment, such as through a standing order or a direct debit. They can obtain foreign currency for customers. However, they are not necessarily very important in an economy as there are other financial institutions that customers can use, such as credit unions and building societies. Also some customers have lost confidence in commercial banks since the financial crisis of 2007–2008 and are reluctant to use their services. [5 marks]

Total mark: 11/20

Examiner feedback

a. The candidate has referred to the fact that money is anything that is widely and generally accepted in an economy, but there is no reference to the fact that money is used as a means of exchange for goods and services.

b. The candidate has referred to the fact that money as a standard for deferred payment means that borrowers are able to borrow money today and pay it back at a later date, but there is no reference to the idea that this enables payment to be spread over a period of time, encouraging the use of credit, the expansion of trade and therefore the economic development of a country.

c. The candidate has identified three roles that a central bank performs in an economy: the supervision of monetary policy, acting as a lender of last resort to the commercial banks and managing the national debt of the government. One identification mark has been awarded for each of these three roles, but no development marks have been awarded. The candidate needed to say more about each of these three roles. For example, the candidate could have said that monetary policy involves the price and quantity of money and is used to regulate the level of demand in an economy. The lender of last resort role is important because it means that a central bank will come to the aid of a commercial bank, promoting confidence in the financial system. The national debt refers to the accumulated debt of a country over a period of time.

d. The candidate has started by stating that commercial banks are very important in an economy and has then given a number of examples of their functions to support this view. However, the answer is rather list-like and needed to be developed more fully. For example, there could been explanations of such terms as loan, overdraft, mortgage, current account, standing order and direct debit. The candidate does then consider the other point of view and has given a couple of examples to support this alternative view, but this alternative perspective could have been developed more fully.

Exam-style question 2

a. Define the term 'spending' [2]

b. Describe **two** possible influences on borrowing. [4]

c. Analyse the influence of levels of income on the spending, saving and borrowing patterns of different households. [6]

d. Discuss whether decisions to save are influenced only by the rate of interest on savings accounts. [8]

Analysis

✓ In (a), you will need to clearly define what is meant by the term 'spending'.

✓ In (b), you will need to describe two possible influences on borrowing; they will need to be described and not simply identified.

✓ In (c), you will need to make sure that you analyse the influence of levels of income not just on spending, but also on the saving and borrowing patterns of different households.

✓ In (d), you will need to consider the importance of the rate of interest on decisions to save and then discuss other possible influences on savings decisions other than the rate of interest.

Mark scheme

a. One mark for the idea of spending involving the exchange of money for goods and services, one mark for the idea that spending enables a person to enjoy goods and services now, whereas saving enables a person to have the money to spend on goods and services later. [2]

b. One mark each for two possible influences on borrowing; a further mark each for descriptions of these two possible influences on borrowing. [4]

c. Up to two marks for an analysis of each of the spending, saving and borrowing patterns of different households in an economy. [6]

d. Up to five marks for a consideration of savings decisions being only influenced by the rate of interest on savings accounts, up to five marks for a discussion of other possible influences on savings decisions. [8]

Student answer

(a) Spending is the exchange of money for goods and services. [1 mark]

(b) One influence on borrowing is the level of confidence of the borrower to be able to pay back the money borrowed, plus interest, at some point in the future. Another influence is expected price changes in the future. [3 marks]

(c) High-income households are not likely to spend all of their income so they will be able to save some of it. Middle-income households are likely to spend most of their income so they may be able to save only a small amount of this income. Low-income households will probably spend all of their income so they will be unable to save any of it. [4 marks]

(d) Decisions to save are influenced by many possible factors, but in many cases the most important influence is the rate of interest paid on savings accounts. Interest is the reward paid to savers for depositing money in savings accounts. If the rate of interest is relatively high, especially if it is higher than the rate of inflation in a country, then savers will be encouraged to postpone current spending decisions and save money. If the rate of interest is relatively low, then savers will be less inclined to deposit money in savings accounts because the reward for doing so is not so attractive. However, decisions to save can be influenced by other factors, so the rate of interest is not the only influence. For example, people will be more attracted to savings accounts if there is easy access, that is, they are able to take money out of the account if they have an emergency situation that requires a payment of money. Also, the confidence of people in financial institutions could be a factor; if a person has little confidence in financial institutions, the person will be less likely to save with them. [6 marks]

Total mark: 14/20

a. The candidate has referred to the fact that spending is the exchange of money for goods and services but has not referred to the idea that spending enables a person to enjoy goods and service now whereas saving enables a person to have the money to spend on goods and services later.

b. The candidate has given quite a good description of the first possible influence on borrowing decisions, that is, the level of confidence of the borrower in being able to pay back the amount of money borrowed, plus interest, but the second possible influence, expected price changes in the future, is identified but not really described. The candidate could have written that if prices are expected to rise in the future, people may be more likely to borrow money now and spend it rather than waiting and therefore having to pay more in the future.

c. The candidate has analysed spending and savings decisions according to the income levels of different households, but there is no reference at all to borrowing decisions by different households according to their income.

d. The candidate has stated that the main influence on savings decisions is the rate of interest on savings accounts, stressing that people are more likely to save when the rate of interest is relatively high and less likely to save when the rate of interest is relatively low. The comparison of the rate of interest with the rate of inflation is a good point to make. The candidate has gone on to state that the rate of interest is not the only influence on decisions to save and has referred to some other possible factors, such as the ease of access to the money held in savings accounts and the confidence people have in financial institutions. However, this side of the discussion could have been developed more fully. For example, the candidate could have pointed out that savings decisions can also be influenced by the importance of the reason why people are saving, such as to pay for a child's education or to save for retirement. They can also be influenced by income and expenditure changes that could affect the amount of money they have left over to save.

Exam-style question 3

a. Define, using an example, the term 'public sector' **[2]**

b. Explain **two** reasons for the existence of small firms. **[4]**

c. Analyse, with the use of examples, why a firm might wish to integrate vertically, both backward and forward. **[6]**

d. Discuss whether firms will always benefit from an increase in their size. **[8]**

Analysis

✓ In (a), you will need to clearly define the term 'public sector' as the part of an economy that is owned by the government and include an appropriate example

✓ In (b), you will need to explain two reasons for the existence of small firms, going beyond a simple identification of two reasons, for example the limited size of the market and the lack of sufficient funds to finance the expansion of a firm

✓ In (c), you will need to analyse the reasons for both backward and forward vertical integration, using appropriate examples to support the analysis.

✓ In (d), you will need to consider both points of view, a situation where a firm will benefit from an increase in its size and a situation where this will not necessarily be the case

Mark scheme

a. One mark for a reference to an organisation that is owned by the government or state; one mark for an appropriate example of an organisation in the public sector, for example, Indian Railways. **[2]**

b. Up to two marks each for two reasons for the existence of small firms. **[4]**

c. Up to three marks each for an analysis of why a firm might wish to integrate vertically backward and vertically forward, with the use of appropriate examples. **[6]**

d. Up to five marks for a consideration of a firm benefiting from an increase in its size; up to five marks for a discussion of a firm experiencing disadvantages as a result of an increase in its size **[8]**

Student answer

(a) The term 'public sector' refers to an enterprise or organisation that is owned by the government or state. One example of an organisation in the public sector is Indian Railways. [2 marks]

(b) One reason for the existence of small firms is because the size of the market for the products produced by the firm is limited. For example, it is a specialised or niche market, such as a specific type of electrical product. Another reason is that the owner of the firm prefers it to stay small to allow for more effective control, especially if the firm would have difficulties raising the funds that would be needed to finance expansion. [4 marks]

(c) Vertical integration refers to a merger or takeover where two or more firms at different stages of production in the same industry join together. Backward vertical integration is where a firm merges with another firm at an earlier stage of production, for example, when a tea producer takes over a tea plantation. This is done to ensure that the firm has the necessary supplies of raw materials. Another type of vertical integration is forward vertical integration when a firm takes over appropriate retail outlets. [4 marks]

(d) Firms will often benefit from an increase in their size, giving rise to the possibility of lower costs of production. This is known as economies of scale and if these economies relate to a particular firm, they are known as internal economies of scale. For example, a firm could benefit from technical economies, buying machinery and equipment that enables production to be fully automated. A firm could also benefit from financial economies, such as when a firm borrows money from a financial institution at a favourable rate of interest. A large firm would be able to afford the best and most knowledgeable managers and would also be able to buy in bulk, achieving significant discounts and so reducing costs. However, a firm will not always benefit from an increase in size because if output is increased beyond the optimum size, there could be increasing costs of production. In this situation, the firm would be experiencing internal diseconomies of scale. [6 marks]

Total mark: 16/20

a. The candidate has correctly defined the term and has given an appropriate example of an enterprise operating in the public sector.

b. The candidate has identified and explained two appropriate reasons for the existence of small firms.

c. The candidate has provided quite a good analysis of backward vertical integration, including an appropriate example, but there is only a brief reference to forward vertical integration. There is a description of what is involved in this type of integration, but there is no analysis of why a firm might want to integrate vertically forward with another firm and no example is given of such integration.

d. The candidate has given a useful consideration of why a firm would benefit from an increase in its size and has then briefly stated that this may not always be the case because of the possibility of the existence of diseconomies of scale when a firm grows beyond its optimum size. The answer is not very well balanced and the candidate needed to expand the discussion of diseconomies of scale, such as through the use of some examples. For example, there could be technical diseconomies, management diseconomies and also a greater likelihood of industrial relations disputes.

Exam-style question 4

a. Define the term 'productivity'. **[2]**

b. Describe **two** objectives of firms. **[4]**

c. Analyse **two** features of competitive markets. **[6]**

d. Discuss whether the existence of a monopoly market is always against the interest of consumers. **[8]**

Analysis

✓ In (a), you will need to clearly define the term 'productivity', stressing how it can be distinguished from production.

✓ In (b), you will need to fully describe two possible objectives of firms in order to gain the maximum mark.

✓ In (c), you will need to analyse two distinctive features or characteristics of a competitive market.

✓ In (d), you will need to consider both sides of the argument, the view that a monopoly market may be against the interest of consumers and the alternative view that this will not always necessarily be the case.

Mark scheme

a. One mark for stating that productivity refers to the output per factor of production and not the total output, one mark for stating that it is usually measured per period of time **[2]**

b. Up to two marks each for a description of two objectives of a firm, such as survival, social welfare, profit maximisation and growth. **[4]**

c. Up to three marks each for an analysis of two features of a competitive market, such as a high number of firms and perfect knowledge on the part of buyers and sellers. **[6]**

d. Up to five marks for a consideration of the view that a monopoly market is against the interest of consumers, up to five marks for a discussion of the view that a monopoly market is not always necessarily against the interest of consumers. **[8]**

Student answer

(a) Productivity is the output per factor of production, such as labour or capital, and not the total output produced by a firm. [1 mark]

(b) A very important objective of a firm is to make a profit and indeed many firms have not just profit but profit maximisation as their main aim. Profit maximisation occurs when there is the greatest difference between total revenue and total cost. [2 marks]

(c) One feature of a competitive market is there are a high number of firms competing with each other in the market and a high number of consumers willing to buy the products. There are therefore many buyers and sellers of a uniform or homogeneous product in the market with each having perfect knowledge, with everybody knowing what other firms are producing and selling and at what price. A second feature of a competitive market is that there are no barriers to entry into the market and no barriers to exit from the market. This means that although supernormal or subnormal profits may be made by firms in the short run, all firms in the market make only normal profit in the long run. [6 marks]

(d) A monopoly market is always against the interest of consumers. One reason for this is that because a monopoly firm can control a market, it can restrict the output that is produced or raise the price higher than would be the case in perfect competition, although it can't control both output and price. A monopoly firm is a price maker, rather than a price taker as in perfect competition, and so consumers will be required to pay higher prices for products because of the absence of competition in the market, that is, consumers can't vote with their feet and buy a product from another producer because there are no other producers in the market. The quality of products may also be lower than would be the case in perfect competition as monopoly firms can use their dominant position in the market to focus on making supernormal profits in both the short run and the long run. [5 marks]

Total mark: 14/20

Examiner feedback

a. The candidate has stated that productivity refers to the output per factor of production, but has made no reference to the fact that it is measured over a period of time, such as per hour or per day.

b. The candidate has given quite a good description of one possible objective of a firm, profit maximisation, but there is no description at all of a second possible objective, such as survival, social welfare or growth.

c. The candidate has provided a sound analysis of two features of competitive markets and has gained the maximum mark in this part of the question.

d. The candidate has given an entirely one-sided answer to this part of the question. There is a useful consideration of the disadvantages of a monopoly market and the candidate has provided a number of examples of a monopoly firm acting against the interest of consumers. However, there is no discussion of the possibility that a monopoly firm could act in the interest of consumers. For example, a monopoly market would be in the interest of consumers if the firm was a natural monopoly as this would avoid the wasteful duplication of resources. A monopoly firm could also benefit from economies of scale and the lower costs of production could be passed on to consumers in the form of lower prices. Also, the supernormal profits could be used to finance extensive research and development, leading to consumers being able to buy products of a high quality.

Unit 4:
Government and the macroeconomy

Your exam

Government and the macroeconomy is part of paper 1, multiple-choice questions, and paper 2, structured questions. Paper 1 is a 45-minute exam and makes up 30% of the total marks. Paper 2 is a 2-hour 15-minute exam and makes up 70% of the total marks.

Tick these boxes to build a record of your revision

Your revision checklist

Specification	Theme	Tick	Tick	Tick
4.1 The role of government	4.1.1 Government roles			
4.2 The macroeconomic aims of government	4.2.1 The macroeconomic aims of government			
	4.2.2 Possible conflicts between macroeconomic aims			
4.3 Fiscal policy	4.3.1 Definition of the budget and the reasons for government spending			
	4.3.2 Reasons for taxation			
	4.3.3 Classification of taxes			
	4.3.4 Principles of taxation			
	4.3.5 The impact of taxation			
	4.3.6 Definition of fiscal policy			
	4.3.7 Fiscal policy measures			
	4.3.8 The effects of fiscal policy on government macroeconomic aims			
4.4 Monetary policy	4.4.1 Money supply, monetary policy and monetary policy measures			
	4.4.2 The effects of monetary policy on government macroeconomic aims			
4.5 Supply-side policy	4.5.1 Definition of supply-side policy and supply-side policy measures			
	4.5.2 The effects of supply-side policy measures on government macroeconomic aims			
4.6 Economic growth	4.6.1 Definition and measurement of economic growth			
	4.6.2 Causes and consequences of recession			
	4.6.3 Causes of economic growth			
	4.6.4 Consequences of economic growth			
	4.6.5 Policies to promote economic growth			
4.7 Employment and unemployment	4.7.1 Employment, unemployment and full employment			
	4.7.2 Changing patterns and level of employment			
	4.7.3 Measurement of unemployment			
	4.7.4 Causes and types of unemployment			
	4.7.5 Consequences of unemployment			
	4.7.6 Policies to reduce unemployment			
4.8 Inflation and deflation	4.8.1 Definition of inflation and deflation			
	4.8.2 Measurement of inflation and deflation			
	4.8.3 Causes of inflation and deflation			
	4.8.4 Consequences of inflation and deflation			
	4.8.5 Policies to control inflation and deflation			

You need to know:

- the role of government locally, nationally and internationally

4.1.1 Government roles

Government is involved in the macroeconomy at three levels: locally, nationally and internationally.

At the local level, government will:

- establish local taxes
- provide a number of local services
- establish regulations and rules (for example, provide permits and licences)
- invest in local infrastructure

At the national level, government will:

- establish national taxes
- provide a number of national services
- manage the economy through a range of fiscal, monetary and supply side policies.

At the international level, government will:

- engage in **bilateral** or **multilateral** negotiations with other countries
- take part in discussions if the country is in an economic union, such as the **European Union (EU)** or the **North American Free Trade Area (NAFTA)**
- interact with financial institutions, such as the **International Monetary Fund (IMF)** or the **World Bank**
- interact with other countries and institutions to create treaties and agreements, for example, the Kyoto Protocol on the environment.

Key terms

Bilateral: a negotiation or agreement that takes place between two countries

Multilateral: a negotiation or agreement that takes place between a number of countries

European Union (EU): an economic union of sovereign countries in Europe

North American Free Trade Area (NAFTA): a free trade area comprising Canada, the United States and Mexico

International Monetary Fund (IMF): an organisation of 189 countries, set up in 1944, to promote international trade

World Bank: an organisation of 189 countries, set up in 1944, to provide finance to countries

Exam tip

You need to be able to give examples of the role of government at the local, national and international level.

▲ **Figure 71** *The Malaysian government is responsible for national policy making in the country*

Recap

Government has a role to play:

- at the local level
- at the national level
- at the international level

Apply

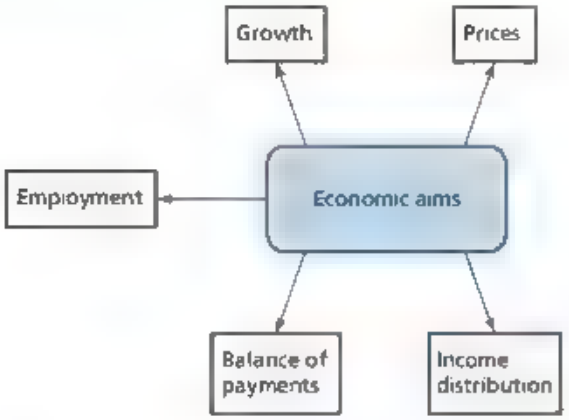
Find examples of what the government in your country does at the local, national and international level.

You need to know:

- **economic growth, full employment/low unemployment, stable prices/low inflation, balance of payments stability, redistribution of income, reasons behind the choice of aims and the criteria that governments set for each aim**
- **possible conflicts between aims: full employment versus stable prices; economic growth versus balance of payments stability; and full employment versus balance of payments stability**

4.2.1 The macroeconomic aims of government

A. governments have economic aims relating to the five issues shown in Figure 72



▲ **Figure 72** *The macroeconomic aims of government*

Economic growth

Economic growth refers to an increase in the national output of an economy over a period of time, usually measured through a change in **gross domestic product**. It is important that an economy grows over time although it is important that this growth takes account of **sustainability**. The aim for the rate of growth varies enormously between different countries. In some countries it might be only 2% or 3% but in India and China in recent years, the rate has been close to 10%.

Full employment/low unemployment

A government will aim to keep employment as high as possible and unemployment as low as possible. Having as many people working as possible makes the best use of the factor of production labour. **Full employment** is defined as the level of employment where everyone who is able and willing to work has a job. In some countries, this would be an employment rate of 95% and an unemployment rate of 5% but in many countries the employment rate is much lower, and the unemployment rate much higher than this.

Key terms

Economic growth: the increase in the national output of an economy over a period of time, usually measured through a change in gross domestic product

Gross domestic product: the total value of all that has been produced within the geographical boundaries of a country over a given period of time

Sustainability: the idea that the interests of future as well as present generations are taken into account

Full employment: the level of employment where everyone who is able and willing to work has a job

Key terms

Inflation: the increase in the general level of prices in an economy over a period of time

Retail prices index: a way of measuring changes in the prices of a number of goods and services in an economy over a period of time, including the cost of housing

Consumer prices index: a way of measuring changes in the prices of a number of goods and services in an economy over a period of time excluding the cost of housing

Balance of payments: a record of all international transactions

Current account of the balance of payments: part of the balance of payments made up of four parts – trade in goods, trade in services, primary income and secondary income

Deficit in an account: a negative balance where expenditure exceeds income

Surplus in an account: a positive balance where income exceeds expenditure

Exam tip

Make sure that you can identify the five macroeconomic aims of government, explain the reasons behind the aims and state the criteria that governments set for each aim

Stable prices/low inflation

Another aim of government is to try to keep the increase in the general level of prices in an economy relatively stable and as low as possible. This is because **inflation** the increase in the general level of prices in an economy over a period of time erodes the real value of money – its purchasing power is reduced. The rate of inflation in a country is measured through a price index (usually either a **retail prices index** or a **consumer prices index**) and the aim in many countries is to try to keep this at about 2% per annum, but in some countries the inflation rate is much higher than this.

Balance of payments stability

The **balance of payments** refers to the payments that take place across the borders of a country. The **current account of the balance of payments** consists of the value of trade in goods, trade in services, primary income and secondary income. It is important that a country is not regularly spending more than it is receiving. One year there may be a **deficit in an account** and another year there may be a **surplus in an account** of the balance of payments, but the aim of a government is that there should be stability in the balance over a number of years.

Redistribution of income

A further aim of government is to try to reduce the inequality of income in the country. In many countries there is a small number of very rich people, but many people living in poverty. A government will try to reduce the extent of this inequality of income, but it is difficult to set precise criteria for this aim.

There are five macroeconomic aims of government:

- economic growth
- full employment/low unemployment
- stable prices/low inflation
- balance of payments stability
- redistribution of income

Find out the following data for your country: the rate of economic growth, the rate of unemployment, the rate of inflation and the current account balance of the balance of payments.

There may be possible conflicts between these macroeconomic aims – these are covered in section 4.2.2.

4.2.2 Possible conflicts between macroeconomic aims

There are possible conflicts between the various macroeconomic aims of government.

Possible conflicts between aims	Explanation
Full employment versus stable prices	If a government aims for full employment, the level of demand will be high, possibly higher than the level of supply. If this is the case, the excess demand in the economy will pull up prices, causing demand-pull inflation. It will therefore be difficult for a government to achieve a situation of stable prices.
Economic growth versus balance of payments stability	If a government aims for economic growth, the output will increase. To produce this higher output, firms may need to import more raw materials and component parts from other countries, leading to a deficit in the balance of payments. It will therefore be difficult for a government to achieve balance of payments stability.
Full employment versus balance of payments stability	If a government aims for full employment, more people will be working so there is likely to be an increase in incomes. Higher incomes are likely to lead to higher spending and some of this may involve buying imports. If that is the case, it will make a deficit in the balance of payments more likely. It will therefore be difficult for a government to achieve balance of payments stability.

Recap

- It is possible that there will be conflicts between the macroeconomic aims of government.
- Examples of such conflicts could include full employment versus stable prices, economic growth versus balance of payments stability and full employment versus balance of payments stability.

Exam tip

You should be able to demonstrate in the exam that although a government will have a number of macroeconomic aims, it will be difficult if not impossible to achieve success in all of these aims at the same time. It is therefore possible that there will be conflicts between some of these aims.

Explain why there could be a possible conflict between full employment and stable prices.

There is a case study of Norway's economy on page 129 of the Student Book.

You need to know:

- the definition of the budget; the main areas of government spending and the reasons for and the effects of spending in these areas
- taxation as the main source of government revenue and the reasons for levying taxation
- examples of the different classifications of tax; progressive, regressive, proportional; and direct, indirect
- the qualities of a good tax
- the impact of taxation on consumers, producers, government and the economy as a whole
- the definition of fiscal policy
- the tax and spending changes, in the form of fiscal policy, that cause budget balance or imbalance, including calculations of the size of a budget deficit or surplus
- how fiscal policy measures may enable a government to achieve its macroeconomic aims

Key terms

Budget: a financial statement that sets out the income and expenditure of a government in a given year

Budget surplus: a situation where public revenue is greater than public expenditure

Budget deficit: a situation where public expenditure is greater than public revenue

Balanced budget: a situation where public revenue and public expenditure are equal

Equity: the idea of fairness or justice such as in relation to the distribution of income in an economy

4.3.1 Definition of the budget and the reasons for government spending

A **budget** is a financial statement that sets out the income and expenditure of a government in a given year. It shows the relationship between government revenue and government spending.

There are three possible outcomes of a budget:

- a **budget surplus**: this is where public revenue is greater than public expenditure – there is more money coming in than going out
- a **budget deficit**: this is where public expenditure is greater than public revenue – there is more money going out than coming in
- a **balanced budget**: this where public revenue and public expenditure are equal – the amount of money coming in is exactly the same as the amount going out.

Governments intervene in an economy for a variety of different reasons and these are likely to include the following:

To influence economic activity	A government may decide to increase its spending in order to stimulate the level of demand in an economy e.g. to increase output and bring about a higher level of economic growth
To reduce market failure	A government may decide to spend on public goods because these would not be provided by the market sector, e.g. defence and police. A government may also decide to spend on merit goods that would be underproduced and underconsumed in a market economy because of the existence of information failure, e.g. education and health care
To promote **equity**	A government may decide to provide benefits to those who are not so well off in a society through a system of social welfare
To pay interest on money borrowed	A government will need to pay interest on any money borrowed. The total debt of all money borrowed is called as has already been pointed out, the national debt

Activity

1. Distinguish between a budget surplus and a budget deficit.
2. Explain why governments spend money in an economy.

Recap

- A budget is a financial statement that sets out the income and expenditure of a government in a given year.
- There are three possible outcomes of a budget: a budget surplus, a budget deficit and a balanced budget.

There are four main reasons for government spending:

- to influence economic activity
- to reduce market failure
- to promote equity
- to pay interest on money borrowed.

Activity

There is a case study of the UK budget on pages 130–131 of the Student Book.

Market failure is covered in section 2.1.0. The national debt is covered in section 3.1.2 on the role and importance of central banks.

4.3.2 Reasons for taxation

Definition of taxation

A tax is a payment that is made by individuals or firms to a government. It is a compulsory contribution to public revenue, levied by a government on incomes and profits or added to the costs of certain goods, services and transactions.

The reasons for levying taxation

There are a number of possible reasons for the existence of taxation in an economy, including the following.

Exam tip

Taxation is usually the main source of government revenue, but remember that a government may have other reasons for levying taxation.

To raise revenue to finance government expenditure	Taxation is usually the main source of government revenue, although a government can also borrow money.
To influence economic activity	Changes in taxation can have an impact on the level of demand in an economy, e.g. if there is a reduction in taxation, this will help to stimulate economic activity.
To discourage the consumption of demerit goods	These are goods that are overproduced and overconsumed in an economy because of the existence of information failure, such as alcohol and tobacco.
To redistribute income	Taxation can be used by a government to bring about greater equity in the distribution of an income in an economy, e.g. by taxing richer people more than poorer people and using this money to finance benefit payments to the poor.
To discourage imports	If taxes are placed on imported products, this will make them more expensive. If the demand for such products is relatively price elastic, this will reduce the demand for them, protecting domestic producers who should experience an increase in demand for their products.
To reduce pollution	A government could impose a tax on firms that are causing pollution, raising their costs of production and encouraging them to produce less, reducing the level of pollution.

Governments levy taxes for a number of reasons:

- to raise revenue
- to influence economic activity
- to discourage the consumption of demerit goods
- to redistribute income
- to discourage imports
- to reduce pollution.

Analyse three reasons for a government levying taxation in an economy.

4.3.3 Classification of taxes

Taxes can be classified in two ways:

- progressive, regressive and proportional taxes
- direct and indirect taxes.

Progressive, regressive and proportional taxes

One way to classify taxes is by considering whether a tax is a progressive tax, a regressive tax or a proportional tax.

- **Progressive tax**: this kind of tax takes a greater proportion of income from a wealthy person than from a poor person. For example, someone earning US$10,000 a year might pay 12% of this in tax; someone earning US$160,000 a year might pay 32% of this in tax, and someone earning US$510,000 a year might pay 37% of this in tax.
- **Regressive tax**: this kind of tax takes a greater proportion of income from a poor person than from a wealthy person. This situation occurs when a government imposes a tax at a set rate. For example, if a goods and services tax (GST) or a value added tax (VAT) is set at 20%, everybody will pay this percentage, however rich or poor they are.
- **Proportional tax**: this kind of tax takes an equal proportion of income from everybody, that is, the tax rises in proportion to the income of the taxpayer. For example, if a tax rate is established at 20% of income everybody will pay an equal proportion of their income in tax.

The differences between these three kinds of tax are shown in Figure 73.

Progressive tax: a tax that takes a higher proportion of a person's income as that income rises.

Regressive tax: a tax that takes a larger proportion of low incomes than it does of high incomes.

Proportional tax: a tax that takes an equal proportion of income whatever a person's income is.

Exam tip

Make sure you clearly understand that a progressive tax redistributes income in favour of the poor whereas a regressive tax redistributes income in favour of the rich.

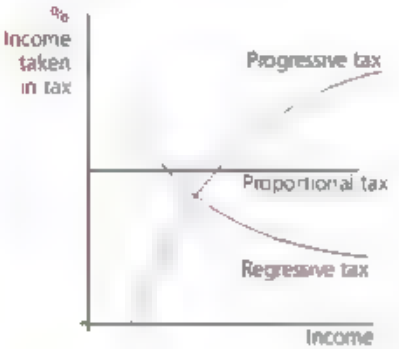


Figure 73 *The relationship between income and the percentage of income taken in tax*

Direct and indirect taxes

- Direct tax: the burden of this kind of tax falls on the person paying it, for example, a tax on income, such as income tax, is taken directly from a person's wage or salary and paid directly to the government
- Indirect tax: the burden of this kind of tax, or at least some of the burden, can be passed on to others, for example, a firm will pay a sales tax to a government, but some of the tax can be passed on to consumers in the form of higher prices. This kind of tax is a tax on expenditure rather than income

Exam tip

Make sure that you can clearly distinguish between direct and indirect taxes and that you can give appropriate examples of each type of tax

Question

Which of the following is an example of an indirect tax?

a. Corporation tax
b. Income tax
c. Inheritance tax
d. Value added tax

Theory

There are two forms of classification of taxes:

- progressive/regressive/proportional taxes
- direct/indirect taxes.

4.3.4 Principles of taxation

There are a number of qualities or characteristics of a good tax

Quality	Explanation
Economical to collect	The cost of administering a tax should be relatively low in relation to the revenue obtained from the levying of the tax
Fit for purpose	Taxes should achieve the desired outcome e.g. if a tax imposed on a firm is intended to reduce the level of pollution and this is what happens then the tax has achieved its goal
Based on the principle of equity	The principle of equity should exist, that is the burden of a tax should fall fairly on those in similar circumstances, e.g. two people earning the same income or two firms making the same profit
Simple to understand	It should be relatively easy for those paying a tax to understand it
Predictable	Taxpayers and the government should be able to predict with some degree of certainty what tax will be paid and how much will be received by a government
Compatible with each other	The whole system of taxation should fit together in a clear, coherent and logical way
Convenient to pay	It should be easy for taxpayers to pay
Broad based	Taxes should fall widely across the whole society so that everybody is making some contribution to the government for the services received.
Flexible	It should be possible to change a tax if there is a change in the level of economic activity e.g. to take account of a situation of economic boom or economic slump.
Efficient	Taxes should improve or not substantially reduce the performance of markets, e.g. rates of income tax should not be so high that they discourage effort or tempt workers to move to another country

Common error

Candidates sometimes state that a progressive tax is one that takes more money from the rich than from the poor but you need to understand that it is progressive because it takes a higher proportion of the income of the rich than the poor

Exam tip

You should be able to assess a particular tax in terms of the qualities of a good tax. It is unlikely that any particular tax will have all of these qualities or characteristics.

Recap

Taxation is based on a number of principles and a good tax is said to possess certain qualities.

Apply

Describe three qualities of a good tax.

There is a case study on the effectiveness of a tax system on page 135 of the Student Book

4.3.5 The impact of taxation

The impact of taxation can be seen in its effect on different economic agents.

Economic agent	Explanation
Consumers	Direct taxes redistribute income so some people will benefit from this redistributive effect. Indirect taxes tend to be regressive so they hit the poor harder than the rich. Indirect taxes can be effective when they are for a specific purpose because they are harder to avoid, e.g. a tax designed to reduce the consumption of a commodity or tobacco. Price elasticity of demand is relevant to taxation, e.g. the more inelastic demand is, the greater the proportion of tax that can be passed on to consumers.
Producers	Direct taxes, such as corporation tax, can be a disincentive to enterprise. Entrepreneurs may be discouraged from setting up businesses because they believe that rates of tax on the profits of firms are too high. Indirect taxes, such as VAT, involve quite a lot of paperwork, which can be a burden on firms.
Workers	Direct taxes, such as income tax, can be a disincentive to hard work. Some people may be discouraged from working overtime or seeking promotion because of the disincentive of higher tax rates. There is also an alternative view that, if higher tax rates may encourage some people to work harder in order to maintain their net income (income after deductions have been taken away).
Savers	Taxes on saving can reduce the incentive to save; this will reduce the funds available to financial institutions to lend to individuals and firms.
Government	Taxes are a good way for governments to raise revenue to pay for essential public expenditure. Indirect taxes are easy and cheap for the government to collect as firms do some of the work in collecting them. Governments can take the price elasticity of demand for different products into account when setting taxes.
Economy as a whole	Indirect taxes, such as a sales tax, have an inflationary impact in an economy as they are likely to raise prices. Imposing taxes that are too high can affect the economy by contributing to an increase in unemployment due to workers being laid off and firms closing. A high level of taxes can also lead to an increase in tax evasion and a growth in the 'undercover' or 'hidden' economy.

Recap

Taxation can have an impact on a variety of economic agents, including

- consumers
- producers
- government
- the economy as a whole.

Distinguish between the positive and the negative impact of taxation

Taxation is an important part of fiscal policy that is covered in the next three sections.

4.3.6 Definition of fiscal policy

Fiscal policy is a government policy that is designed to deliberately change the amount of government spending or the amount of taxation to help achieve particular objectives. This is done by changing the level of demand in an economy.

Fiscal policy has two elements.

- changing the relationship between the relative size of revenue and expenditure, for example, raising government spending while maintaining the rate of taxation
- structural changes in government revenue and government expenditure for example, a government may change its pattern of expenditure by spending more on infrastructure and less on social welfare.

Fiscal policy: the deliberate adjustment of the relationship between government revenue and government expenditure in order to achieve particular policy objectives

Recap

Fiscal policy is concerned with the relationship between government spending and government revenue

Give three reasons for government spending and three reasons for government revenue

Exam tip

Make sure you understand that fiscal policy is not simply about government revenue and government expenditure but about the relationship between the two that there is a balanced or an unbalanced budgetary position in an economy

Key terms

Deficit financing (also known as **expansionary fiscal policy**): increases in government expenditure and/or decreases in taxation are used to increase the level of demand in an economy

Contractionary fiscal policy: decreases in government expenditure and/or increases in taxation are used to reduce the level of demand in an economy

Exam tip

The size of a budget deficit or budget surplus will determine the impact that it will have on an economy. For example a small budget deficit is unlikely to be very successful in stimulating an economy at a time of recession but a large budget deficit is likely to have a much more significant impact on the level of demand in an economy.

4.3.7 Fiscal policy measures

Tax and spending changes in an economy can cause budget balance or budget imbalance

A budget imbalance can be of two types: budget deficit or budget surplus

Budget position	Impact on an economy
Budget balance	This situation occurs when government revenue is equal to government expenditure. It will have a neutral impact on an economy, e.g. the rate of inflation will remain relatively stable, enabling firms and consumers to make decisions based on relatively predictable information. The size of the government sector remains the same.
Budget deficit	In this situation, more money is pumped into an economy with the aim of increasing output and employment. This **expansionary fiscal policy** known as **deficit financing**, is used when an economy is in a state of recession, e.g. subsidies can be given to firms experiencing financial difficulties and/or taxes can be reduced to encourage consumers to spend more money. However, deficit financing can lead to a higher rate of inflation with more money chasing the same amount of products (this is known as demand-pull inflation).
Budget surplus	In this situation, the level of demand in an economy will be reduced because taxes will be higher than government spending. This **contractionary fiscal policy** could be used because a government wants to bring down the rate of inflation in an economy.

Recap

Changes in tax and spending can bring about:

- a budget balance
- a budget deficit
- a budget surplus.

Task

Explain how a government could use deficit financing to increase the level of demand in an economy.

Signpost

The three different budgetary positions are covered in section 4.3.1.

4.3.8 The effects of fiscal policy on government macroeconomic aims

Fiscal policy measures may impact on government macroeconomic aims in two ways

- **Discretionary fiscal policies**: these are one-off policy changes and adjustments designed to achieve a specific objective or purpose, for example, a business tax may be decreased in order to stimulate business enterprise
- **Automatic stabilisers**: these are changes that come about automatically in an economy, for example, in a **recession**, the proportion of taxes paid by taxpayers is likely to fall so that the real disposable income is maintained and in a **boom**, the proportion of taxes paid by taxpayers is likely to rise so that the growth of income is limited, making it less likely that there will be a high rate of inflation

▲ **Figure 74** *After the 2008 recession, the US government used fiscal policy, in the form of deficit financing, to support large companies such as General Motors*

Key terms

Discretionary fiscal policies: policies designed to achieve a specific objective

Automatic stabilisers: changes that come about automatically in an economy without the need for policy changes

Recession: a situation of negative economic growth when there is a fall in GDP over two consecutive quarters (three-month periods)

Boom: a situation of positive economic growth when there is an increase in economic activity and a rise in GDP

Recap

A government can achieve its economic aims through fiscal policy measures in two ways

- discretionary fiscal policies
- automatic stabilisers

Exam tip

References to aggregate demand and aggregate supply are not required in answers to exam questions.

Task

Distinguish between discretionary fiscal policies and automatic stabilisers

You need to know:

- the definition of money supply and monetary policy; changes in interest rates, money supply and foreign exchange rates
- how monetary policy measures may enable a government to achieve its macroeconomic aims

Key terms

Money supply: the amount of money available to the general public and the banking system in an economy

Narrow money supply: a measure of the stock of money in an economy that is mainly cash

Broad money supply: a measure of the stock of money that reflects the total potential purchasing power in an economy

Common errors

Candidates often believe that there is one agreed definition of money supply in all economies, but this is not the case. The money supply can be defined in different ways in various countries, but the main distinction is between a narrow and a broad measure of money supply

4.4.1 Money supply, monetary policy and monetary policy measures

Money supply

The **money supply** is the quantity or stock of money in an economy at a given time. There are a number of different measures of money supply.

- **Narrow money supply:** this counts notes, coins and current accounts held in commercial banks; this measure focuses on money that is mainly used as a medium of exchange
- **Broad money supply:** this counts notes, coins and current accounts held in commercial banks, but also counts money deposited in deposit accounts. This measure includes money that is used as a store of value

Monetary policy is made up of two elements:

- Supply of money: the money supply, as has already been indicated, refers to the amount of notes, coins and money held in various bank accounts.
- Price of money: the price of money is usually referred to as the rate of interest that is paid by borrowers of money or received by lenders of money

Monetary policy measures

Monetary policy measures include the following:

Monetary policy measure	Explanation
Changes in interest rates	If the rate of interest in an economy is reduced, this will encourage borrowing and discourage saving, leading to an increase in the level of demand. If the rate of interest in an economy is increased, this will discourage borrowing and encourage saving, leading to a decrease in the level of demand.
Changes in the money supply	Monetarists believe that the quantity of money in an economy should be increased only gradually because if the money supply grows too quickly it can lead to an increase in the rate of inflation in an economy. However, if an economy is facing a recession, an increase in the money supply will help to increase the level of demand in an economy, reducing the rate of unemployment
Changes in foreign exchange rates	In addition to the two main monetary policy measures of changes in the price and quantity of money, changes in foreign exchange rates can also be used. Governments often aim to keep exchange rates stable and predictable as this will create a good environment for trade and investment helping exporters to create jobs

1. Distinguish between a narrow money supply and a broad money supply.
2. Explain how monetary policy operates in an economy.

There is a case study on the foreign exchange rate as a tool of monetary policy on pages 138–139 of the Student Book.

4.4.2 The effects of monetary policy on government macroeconomic aims

Monetary policy can be used in two ways.

Type of monetary policy	Explanation
Expansionary monetary policy	This involves reducing the rate of interest and/or increasing the money supply to increase the level of demand in an economy. This policy is designed to stimulate the level of demand in an economy, e.g. a number of governments have deliberately increased the money supply through a process of **quantitative easing**. This involves a government buying financial assets, enabling more money to be released into the economy. The effect of this is that spending will be encouraged, helping to avoid a recession but the effect of quantitative easing is often to increase the rate of inflation in an economy. Another approach is to lower the rate of interest to encourage borrowing, stimulating economic growth and lowering the rate of unemployment.
Contractionary monetary policy	This involves increasing the rate of interest and/or reducing the money supply to reduce the level of demand in an economy. This policy is designed to reduce the level of demand in an economy, e.g. when the rate of inflation is too high. An increase in the rate of interest will make people less likely to borrow money and so demand will be reduced. Thus, if the macroeconomic aim is to keep down the rate of inflation, interest rates could be increased and/or the money supply reduced. A higher interest rate would encourage saving and discourage spending.

Which of the following is an example of a contractionary monetary policy?

a. A decrease in the rate of interest

b. An increase in taxation

c. An increase in the money supply

d. An increase in the rate of interest

- Money supply can be defined through a narrow measure or a broad measure
- Monetary policy operates through changes in the supply of money and in the price of money (the rate of interest that is received by lenders of money and paid by borrowers of money).

Monetary policy operates through changes in:

- interest rates
- money supply
- foreign exchange rates

Quantitative easing: a process whereby a government deliberately buys bonds and bills to increase the money supply in an economy

Monetary policy measures may enable a government to achieve its macroeconomic aims through

- expansionary monetary policy
- contractionary monetary policy

You need to know:

- the definition of supply-side policy and possible supply-side policy measures
- how supply-side policy measures may enable the government to achieve its macroeconomic aims

4.5.1 Definition of supply-side policy and supply-side policy measures

Supply-side policy refers to a number of measures that can be taken to create a more efficient economy with an increased productive capacity. These policy measures are intended to increase the quantity and/or quality of the factors of production.

Education and training

Investment in education and training schemes will help to make workers more productive and efficient. Investment in training will have a more immediate impact on potential supply as workers develop new skills, but investment in education will be likely to have a more long-term impact.

Labour market reforms

Measures to reduce the power of trade unions, such as their power to limit the supply of workers to keep wages above the market rate, can make the labour market more flexible and more responsive to changes in market conditions, especially in terms of making workers more occupationally and geographically mobile.

Lower direct taxes

A government can reduce income tax, encouraging people to work longer hours, producing a higher output. It can also reduce corporation tax on the profits of firms.

Deregulation

Deregulation involves easing restrictions in the form of rules and regulations that add to the costs of firms, slow down decision making or prevent entry into markets. Some regulations are very important, such as those relating to health and safety, but deregulation gets rid of those that are less important.

Improving incentives to work and invest

A government can provide a range of incentives to work and invest. To encourage people to work, a government could provide subsidies for children's nursery education to make it easier for parents to work. To encourage investment, a government could give tax breaks, in the form of tax holidays, so that firms are more likely to invest in new capital.

Privatisation

Privatisation is the process of transferring the ownership of enterprises from the public sector to the private sector. This should lead to greater competition in markets and encourage firms to have profit maximisation as their main aim. Privatisation should therefore lead to increased efficiency and productivity.

Key term

Supply-side policy: a range of measures designed to increase the level of supply in an economy by enabling markets to perform more efficiently

Recap

- Supply-side policy refers to measures designed to make markets work more efficiently.
- Such measures will increase the productive capacity of an economy.

There are a range of supply-side policies that can be used in an economy.

Check

1. Explain what is meant by supply-side policy.
2. Describe two examples of a supply-side policy measure.

Extend

There is a case study on human capital and the supply side of the economy on page 140 of the Student Book.

4.5.2 The effects of supply-side policy measures on government macroeconomic aims

Supply-side policies may enable a government to achieve its macroeconomic aims.

- Supply-side policy measures will enable economic growth to be achieved in the long run.
- The achievement of economic growth through supply-side policy measures is less likely to cause an increase in the rate of inflation than fiscal or monetary policies, because the level of supply is likely to rise in line with the rise in the level of demand, so the aim of stable prices/low inflation is more likely to be achieved.
- Supply-side policy measures are likely to bring about an increase in employment and therefore the aim of low unemployment will be achieved.
- Supply-side policy measures that improve productive potential and efficiency in an economy can also help to improve balance of payments stability because if an economy can produce better quality, and lower priced, products this is likely to lead to an increase in exports and a decrease in imports, improving the current account of the balance of payments.

However, it needs to be pointed out that there are some potential disadvantages of supply-side policy measures.

- There is likely to be a time lag before the measures begin to show an enhancement of efficiency, such as in relation to education.
- Some of the supply-side policy measures can be rather expensive.

Recap

Supply-side policy measures may enable a government to achieve a number of its macroeconomic aims, including:

- economic growth
- full employment/low unemployment
- stable prices/low inflation
- balance of payments stability.

Activity

Analyse the advantages and disadvantages of improving education as a supply-side policy measure.

Challenge

Some of these macroeconomic aims, including economic growth, low unemployment and low inflation, are covered in sections 4.6, 4.7 and 4.8.

You need to know:

- the definition of economic growth; real gross domestic product (GDP) and how it can be used to measure economic growth; GDP per head (capita)
- the meaning of recession and how a recession moves an economy within its production possibility curve
- how changes in total demand may increase the utilisation of resources and GDP, resulting in a movement from inside toward the production possibility curve
- how economic growth shifts the economy's production possibility curve to the right and is caused by changes in investment, technology, and the quantity and quality of the factors of production
- the costs and benefits of economic growth in the context of different economies
- the range of policies available to promote economic growth and how effective they might be

4.6.1 Definition and measurement of economic growth

Economic growth is the increase in the national output of an economy over a period of time, usually measured through a change in gross domestic product (GDP). GDP is the total value of all that has been produced within the geographical boundaries of a country over a given period of time such as a year

Key terms

Nominal GDP: GDP at current prices that is not adjusted for inflation

Real GDP: GDP at constant prices that is adjusted for inflation

Real GDP

GDP can be separated into three parts:

- gross means total
- domestic refers to the geographical boundaries of a country
- product means output

There are three methods of measuring this output:

- the output method adds up all the output produced in a country
- the expenditure method adds up all the spending on a country's finished output
- the income method adds up all the incomes that have been earned in producing a country's output.

All three methods will produce the same figure. This is because an output of a certain amount will give rise to an income of the same amount and this income will be the expenditure on buying the output produced

GDP is first calculated in nominal terms. This **nominal GDP** can also be referred to as money GDP or GDP at current prices. It has not been adjusted for inflation. It is therefore necessary to adjust nominal GDP to take account of inflation in an economy. Nominal GDP is therefore adjusted to take out the effects of inflation and this is called **real GDP**. This gives a figure for GDP at constant prices

Common error

Candidates often confuse nominal GDP and real GDP. Remember that nominal GDP has not been adjusted for inflation while real GDP has been adjusted to take into account the effects of inflation

GDP per head (per capita)

GDP measures the total value of a country's output, but it does not take into account the size of a country's population. It is therefore useful to calculate per head or per capita figures

Common error

To arrive at a per head or per capita figure, candidates sometimes divide GDP by a country's labour force. This is incorrect – the GDP needs to be divided by the country's population, not its labour force

- To calculate GDP per head or per capita, the GDP of a country is divided by the population of the country
- To calculate real GDP per head or per capita, the real GDP of a country is divided by the population of the country

Problems in the measurement of economic growth

It is not always easy to measure the GDP of a country's economy accurately. There are two problems in the measurement of economic growth.

- GDP figures may understate the actual output of an economy because of the existence of unrecorded economic activity: this unrecorded economy is known by different names, such as the **hidden economy**, the underground economy, the undercover economy or the unrecorded economy.
- GDP figures may also understate the actual output of an economy because there will be non-marketed goods and services (that is, products that are not bought or sold through a market). For example, in many economies in the world there is **subsistence agriculture** where people produce food for their own use.

Key terms

Hidden economy: that part of economic activity that goes unrecorded

Subsistence agriculture: that part of economic activity where the output is for personal use

▲ **Figure 75** *Street vendors in Nigeria may be part of a hidden economy*

Recap

- GDP can be measured using three methods: the output method, the expenditure method and the income method.
- Nominal GDP does not take the effects of inflation into account.
- Real GDP does take the effects of inflation into account.
- GDP per head/per capita and real GDP per head/per capita can be calculated by dividing the GDP/real GDP of a country by its population.

Activity

1. Define economic growth.
2. Explain what is meant by a per head or a per capita GDP figure.

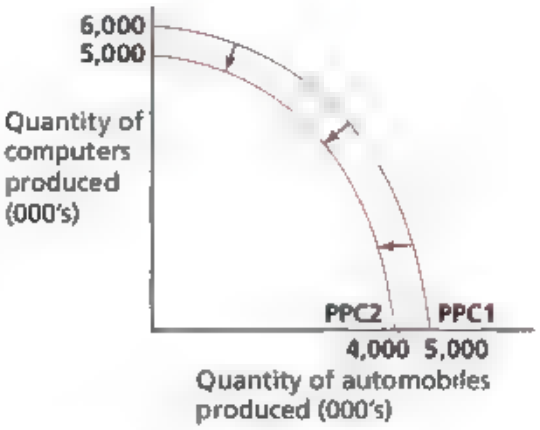
4.6.2 Causes and consequences of recession

Economies can sometimes suffer from a downturn or slump in economic activity. One example of such a downturn is a recession. A recession is a period of negative economic growth in which there is a fall in GDP over two consecutive quarters (three-month periods).

Recession and the production possibility curve

A recession can be seen in a production possibility curve diagram where the curve moves inwards, as shown in Figure 76.

The inward movement of the production possibility curve from PPC1 to PPC2 shows that as a result of a recession, the economy is able to produce less with a given combination of resources than before.



▲ **Figure 76** *A recession moves an economy within its production possibility curve*

The causes of a recession

A recession is caused by a decrease in the total demand in an economy and/or a decrease in the total supply.

The total demand in an economy may fall for a number of possible reasons:

- Consumer expenditure could decline due to a fall in consumer confidence, for example, as a result of falling property prices.
- Investment could decline due to a fall in business confidence, for example as a result of a financial crisis.
- The government could reduce its spending by more than it intended.
- A rise in the exchange rate could lead to a fall in exports.

The total supply in an economy may fall because costs of production increase, causing firms to produce less. The increase in production costs could be caused by a number of factors, including:

- a rise in the cost of raw materials
- a rise in the cost of fuel
- a rise in energy prices

The consequences of a recession

There are a number of possible consequences of a recession, including:

- a reduction in output
- a rise in the level of unemployment
- a decrease in incomes, lowering living standards
- investment is likely to be discouraged
- tax revenue is likely to decline
- government spending on welfare benefits is likely to increase
- if the recession has been caused by a decrease in total supply, the level of inflation in an economy is likely to rise

Recap

- A recession is a period of negative economic growth when there is a fall in GDP over two consecutive quarters (three-month periods).
- A recession can be shown on a production possibility curve by an inward movement of the curve.
- A recession can be caused by a decrease in total demand in an economy and/or a decrease in total supply.
- There are a number of possible consequences of a recession for an economy, including a rise in the level of unemployment and a decrease in incomes.

Apply

Explain how total demand in an economy could fall.

Link

Recession is also covered in section 4.3.8 on the effects of fiscal policy on government macroeconomic aims.

4.6.3 Causes of economic growth

Actual and potential economic growth

It is important to be able to distinguish between two types of economic growth: **actual economic growth** and **potential economic growth**.

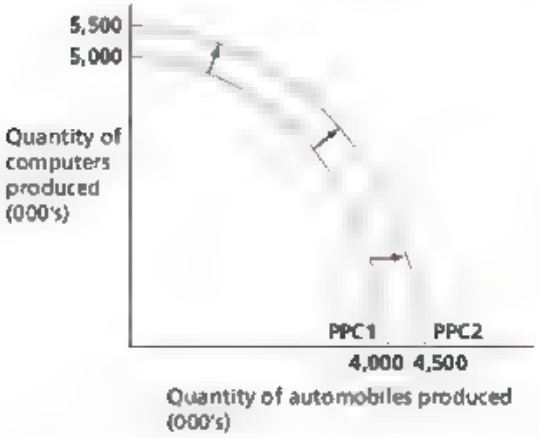
Actual economic growth occurs when there is a change in the total demand in an economy so that there is an increasing utilisation of resources. This can be shown on a production possibility curve diagram by a movement from a position inside the production possibility curve to a position closer to or on it. Demand-side growth involves an increase in consumer spending, leading to firms deciding to increase their output. Actual economic growth occurs in the short run when an increase in total demand can stimulate a rise in output if an economy has unused resources.

Potential economic growth occurs when there is a shift of an economy's production possibility curve to the right so that it is possible to produce more of both goods shown on it. This can be seen in Figure 77 when, as a result of a shift of the production possibility curve to the right, it becomes possible to produce more of both computers and automobiles.

Key terms

Actual economic growth: a movement from within the production possibility curve of an economy to a position on, or closer to, the production possibility curve, resulting from the better utilisation of the existing resources

Potential economic growth: a shift to the right of the production possibility curve of an economy, resulting from a greater quantity and/or quality of resources



▲ **Figure 77** *Potential economic growth is shown by a shift to the right of a production possibility curve*

This shift to the right of the production possibility curve, from PPC1 to PPC2, is caused by a number of possible factors, such as changes in investment, technology and the quantity and/or quality of the factors of production. Potential economic growth occurs in the long run when there is an increase in the quantity and/or quality of resources.

Exam tip

You need to be able to clearly distinguish between economic growth that comes about from the greater utilisation of existing resources indicated by a movement from within a production possibility curve to a position on or near it, and economic growth that comes about by an increase in the quantity and/or quality of resources indicated by a shift of the production possibility curve to the right.

Common error

Candidates sometimes make no reference to the time period in their answers on economic growth. Actual economic growth occurs in the short run and potential economic growth occurs in the long run.

Recap

- Economic growth can come about in the short run by utilising the existing resources more efficiently and this will cause a movement from a position within a production possibility curve to a position on or closer to it.
- Economic growth can come about in the long run, by increasing the quantity and/or quality of resources and this will cause a movement outwards of the production possibility curve, shifting to the right.

Distinguish between actual economic growth and potential economic growth.

Causes of economic growth

Economic growth can occur in an economy for a number of possible reasons, including:

- an increase in the number of workers
- an improvement in the quality of labour leading to a higher level of productivity, for example gaining new or improved skills as a result of a good standard of education and training
- a greater commitment to research and development
- an improvement in technological knowledge and application
- an increase in capital investment, for example machinery and equipment
- a reduction in taxation on the profits of firms to allow them to keep more funds that can be used to finance investment
- a move towards more capital intensive and away from labour intensive production
- increased mobility and flexibility of factors of production
- a more efficient allocation of resources
- the development of new markets for the buying and selling of products
- improvements in infrastructure
- the development of a strong financial sector

4.6.4 Consequences of economic growth

Economic growth can have both negative and positive impacts.

The costs of economic growth	The benefits of economic growth
A depletion of natural resources and damage to the environment in terms of increased levels of pollution.	An increase in living standards, leading to improvements in social welfare services. There will be more goods and services available to the population.
The benefits of economic growth may not always be shared evenly among a country's population, leading to a growing gap between rich and poor in a society.	Less reliance on aid from foreign governments and international organisations.
There could be a shift away from consumer goods to capital goods, which may not necessarily be good in the short run.	The success of an economy could lead to greater confidence in future economic prospects, leading to the encouragement of investment.
An increase in the level of unemployment in an economy if there is a move away from labour-intensive production towards capital-intensive production.	A reduction in the level of unemployment in an economy.
There may be a reduction in the quality of life in a country, e.g. working hours may be longer increasing stress levels and reducing the amount of leisure time.	Some of the increase in output could be exported to other countries, possibly leading to a reduction in the deficit in the balance of payments.
As an economy grows, resources are likely to become increasingly scarce, leading to an increase in production costs.	Higher tax revenue for the government will provide more finance to spend, such as on public goods and merit goods.

The use and conservation of resources

The contrast between the costs and benefits of economic growth can be seen in relation to the use or conservation of resources. The use of resources can make a significant contribution to economic growth, but natural resources are finite in supply and will eventually run out. Therefore, there needs to be a sustainable approach to economic growth, taking into account the needs of future generations as well as the present generation.

Recap

Economic growth can have both costs and benefits for a country

Exam tip

You need to be able to demonstrate that you understand that the consequences of economic growth can have both costs and benefits. Whether the overall or net effect of economic growth in a country is negative or positive will be influenced by the following:

- the rate of economic growth
- the policies adopted to promote it
- the distribution of its benefits

1. Explain what is meant by the idea of a sustainable approach to economic growth.
2. Discuss the costs and benefits of economic growth in your country.

4.6.5 Policies to promote economic growth

There is a range of policies available to promote economic growth in a country and these are broadly of three types.

Type of policy	Impact of policy
Fiscal policies	Expansionary fiscal policy can be used to increase economic growth. For example, there could be an increase in government spending and/or a lowering of tax rates. The effect of both of these policies would be an increase in spending and a lowering of unemployment. The effectiveness of such policies will depend on the extent of the changes. The more government spending is increased and the more that taxation is decreased, the greater the effect will be.
Monetary policies	Expansionary monetary policy can be used to increase economic growth. For example, there could be a reduction in the interest rate, lowering the cost of borrowing and encouraging spending by consumers and firms. The effectiveness of such a policy would depend on the extent of the reduction in the interest rate and the degree of sensitivity of consumers and firms to interest rate changes. There could also be an increase in the money supply, such as through quantitative easing, to stimulate economic growth, but although this might be effective, it could have an inflationary effect in an economy. There could be a devaluation of the foreign exchange rate, making exports cheaper in foreign markets, but the effect of this policy will depend on the price elasticity of demand for exports.
Supply side policies	Supply-side policies can be used to increase economic growth. For example, subsidies could be given to encourage research and development, firms could be privatised, deregulation could be encouraged and corporation taxes on the profits of firms could be lowered. Such policies usually take time to become effective, so in the short run they would be less effective, but in the long run they could be extremely effective.

You need to know:

- the definition of employment, unemployment and full employment
- the nature and causes of changes in the pattern of employment
- how unemployment is measured and the formula for the unemployment rate
- frictional, structural and cyclical unemployment
- the consequences of unemployment for the individual, firms and the economy as a whole
- the range of policies to reduce unemployment and how effective they might be

4.7.1 Employment, unemployment and full employment

- Employment refers to those people who are paid employees or who are self-employed

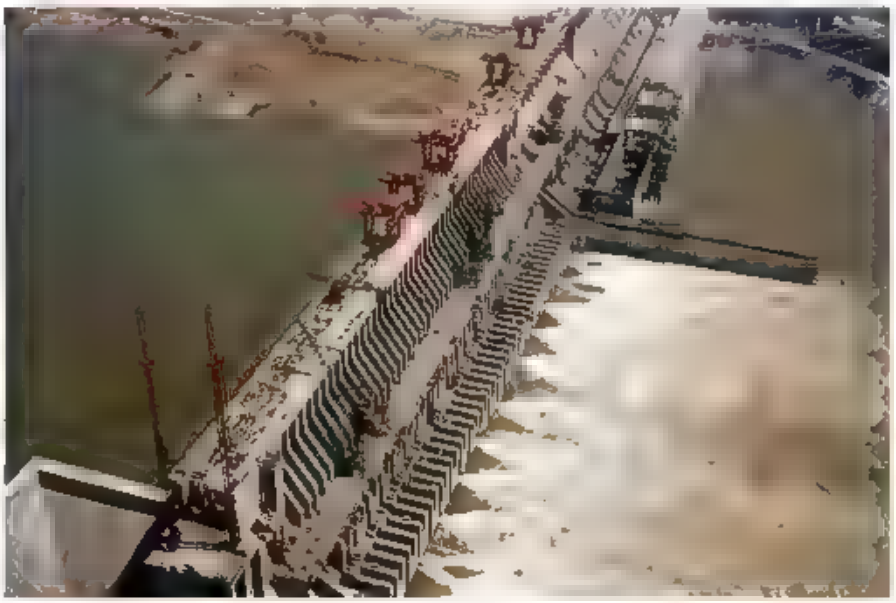
Recap

A range of policies can be used to promote economic growth in a country, and these are broadly of three types.

- fiscal policies
- monetary policies
- supply-side policies.

Think

Analyse how fiscal, monetary and supply-side policies can be used to promote economic growth in a country



▲ **Figure 78** *The hydroelectric power scheme at Three Gorges Dam in China is an example of government spending on investment to promote economic growth*

- Unemployment refers to those people in an economy who are able and willing to work, but have been unable to find a job
- Full employment refers to a situation when the level of unemployment in an economy is at its lowest possible rate
- The labour force in an economy consists of both the employed and the unemployed
- The **participation rate** is the number of people within the working age range of an economy who are prepared to participate in work. It is calculated by dividing the number of people in an economy who are prepared to work by the number of people within the working age range

Key term

Participation rate: the proportion of those people within the working age range of an economy who are in the labour force

The participation rate of a country will depend on a number of possible factors

- Social attitudes, such as in relation to women who work – in some countries, it is acceptable for women to go out to work, whereas in other countries this is not the case
- The wages and salaries paid – relatively high wages are likely to encourage more people to seek employment

- Provision for children and the elderly – if there is an abundance of relatively cheap nursery places and retirement homes, this will encourage people to work as they will not need to spend their time caring for family members.
- Provision for the disabled to work – the easier it is for disabled people to work, the more of them will do so.
- The proportion of students who go on to higher education – the more people there are in higher education, the lower the participation rate will be.

Recap

- The labour force includes both the employed and the unemployed.
- The participation rate is the number of people within the working age range of an economy that are prepared to participate in work.

Activity

Define the term 'labour force'.

4.7.2 Changing patterns and level of employment

There have been a number of changes in the pattern of employment.

- An increase in the proportion of workers employed in the tertiary sector and formal economy. As an economy develops, the proportion of workers employed in the primary sector falls, the proportion employed in the secondary sector first rises and then falls, and the proportion employed in the tertiary sector continually rises. In many countries, the proportion of workers employed in the tertiary sector has increased to over 60% or 70% while in some countries it is over 80%. There has also been an increase in the proportion of workers employed in the **formal economy** as opposed to the **informal economy**, as an economy has developed.
- A greater proportion of women in the labour force due to changes in social attitudes. The proportion of women in the labour force has been increasing in many countries as there has been a decline in discrimination on the basis of gender and an increase in the proportion of women going into higher education and receiving qualifications that have helped them find employment.
- A decline in the proportion of workers employed in the public sector as a country moves towards a market economy. As a country moves towards a market economy, there is likely to be an increase in privatisation as the ownership of firms is transferred from the public sector to the private sector.

Recap

There have been a number of changes in the patterns of employment, including:

- an increase in the proportion of workers employed in the tertiary sector and formal economy as an economy develops
- a greater proportion of women in the labour force due to changes in social attitudes
- a decline in the proportion employed in the public sector as a country moves towards a market economy.

Common error

Many candidates believe that the labour force only consists of the employed in an economy, but this is incorrect. The labour force consists of both the employed and the unemployed.

Link

Changes in the pattern of employment are covered in section 4.7.2. Unemployment is covered in sections 4.7.3, 4.7.4, 4.7.5 and 4.7.6. There is a case study on the labour force in the UK on page 150 of the Student Book.

Key terms

Formal economy: the part of an economy that includes all jobs with normal hours and regular wages that are recognised as sources of income on which income taxes must be paid.

Informal economy: the part of an economy that includes barter of goods and services, mutual self-help, street trading and other such activities with the income generated not recorded for taxation purposes.

Activity

Discuss why, in many countries, there has been an increase in the proportion of women in the labour force.

4.7.3 Measurement of unemployment

How unemployment is measured

Unemployment is measured in one of the two following ways:

- The **claimant count**: this method of measuring unemployment involves counting those people who are in receipt of unemployment benefits but it may understate the number unemployed because there will be some people who are actively searching for work but not claiming any unemployment benefits.
- The **labour force survey**: this method of measuring unemployment is based on the International Labour Organisations definition of unemployment and involves conducting regular surveys of a sample of households and asking about people's employment status. People are defined as unemployed if they are at present without a job but have been actively searching for employment during the past month.

Key terms

Claimant count: a measurement of unemployment that counts as unemployed those receiving unemployment benefits.

Labour force survey: a measure of unemployment that counts as unemployed those identified in a survey as being without a job but who have been actively looking for a job in the past month.

Unemployment rate: the number of people unemployed divided by the total number in the labour force.

The unemployment rate

The **unemployment rate** is the percentage of the total workforce who are unemployed and who are looking for a paid job. The formula for its calculation is the number of unemployed people divided by the total number of people in the labour force.

Exam tip

You need to be able to distinguish between the two ways of measuring unemployment in an economy.

Summary

- Unemployment in an economy can be measured in one of two ways: the claimant count and the labour force survey.
- The unemployment rate is the number of people unemployed divided by the total number in the labour force.

Question

Define the unemployment rate.

Figure 79 *Unemployed people in the United States. Unemployment can have a negative effect on individuals, reducing their sense of self-worth.*

4.7.4 Causes and types of unemployment

Frictional unemployment occurs when the labour market does not work as smoothly as it should. It is the result of a mismatch of the demand for and the supply of, labour. For example, it may be because workers do not have the skills that the employers are looking for.

Within the category of frictional unemployment, there are three forms of unemployment:

- **Search unemployment**: this occurs when workers who have lost their jobs are in the process of searching for new ones, but are finding it difficult because there is too little information available about vacancies.
- **Casual unemployment**: this occurs when people are out of work between periods of employment, for example, actors.
- **Seasonal unemployment**: this occurs when workers are only demanded at certain times of the year, for example, workers in leisure and tourism industries.

Structural unemployment occurs when there are more long-term changes in an economy and these changes can affect specific industries, geographical regions and certain occupations. For example, as an economy develops, there is a move away from employment in the primary and secondary sectors towards employment in the tertiary sector, and as a result of such economic change many workers in the primary and secondary sectors become unemployed.

Within the category of structural unemployment, there are two forms of unemployment:

- **Regional unemployment**: this is unemployment that is concentrated in particular regional areas.
- **Technological unemployment**: where workers lose their jobs as a result of advances in technology.

Cyclical unemployment occurs on a larger scale than structural unemployment and is associated with movements in the trade cycle. Such unemployment is the result of a substantial fall in total demand that affects an economy as a whole. This is why it is also known as **demand deficient unemployment**.

Recap

Three of the most significant causes and types of unemployment in an economy are:

- frictional unemployment
- structural unemployment
- cyclical unemployment.

Apply

Distinguish between frictional, structural and cyclical unemployment.

Key terms

Frictional unemployment: unemployment caused by workers being between jobs

Search unemployment: workers who have lost their jobs are in the process of searching for new ones, but are finding it difficult because there is too little information available about vacancies

Casual unemployment: when people are out of work between periods of employment

Seasonal unemployment: when workers are only demanded at certain times of the year

Structural unemployment: unemployment caused by long-term changes in the pattern of demand and in the structure of an economy

Regional unemployment: unemployment that is concentrated in particular regional areas

Technological unemployment: where workers lose their jobs as a result of advances in technology

Cyclical unemployment (also known as demand deficient unemployment): unemployment caused by a fall in total demand in an economy

Exam tip

Make sure you are able to demonstrate that there are different types of unemployment in an economy and that unemployment can be caused by different reasons.

Key term

Multiplier effect: the amount by which an increase in spending in an economy will bring about an increase of total income in an economy

Exam tip

Make sure that you are able to distinguish between the consequences of unemployment for individuals, firms and the economy as a whole

4.7.5 Consequences of unemployment

Economic agent affected	Consequences
Individuals	The right to work can be regarded as an essential human right. As well as providing an income, it brings a sense of self-worth and achievement. Unemployment means that an individual will not only lose income, but also this sense of satisfaction. It can lead to widespread poverty and hardship, stress and illness, and a lower life expectancy. Unemployment can make it difficult for individuals to find another job because their skills may become out of date. It can affect individuals throughout a community, leading to a number of social problems, such as a higher crime rate
Firms	Unemployment can also have an effect on firms. Unemployed people have less income so they have less money to spend and as a result of this, demand falls and the revenue of firms may also fall. This could lead to the closure of firms. However, unemployment is likely to lead to a fall in wages, as the supply of labour is greater than the demand for labour, and this lowers the costs of production for firms.
Economy as a whole	An increase in unemployment in an economy can have a negative **multiplier effect**. As spending in an economy falls, this will reduce the income of all economic activities. Unemployment means that the output of goods and services will be lower than it would otherwise be, causing an economy to operate within its production possibility curve, leading to a lower standard of living. Also, if fewer people are working and spending, the government will receive less income from taxation, both direct and indirect, and may need to pay out more money in the form of benefits to the unemployed.

Recap

The consequences of unemployment can affect:

- individuals
- firms
- the economy as a whole

Apply

Explain how unemployment can cause a negative multiplier effect in an economy

There is a case study on the impact of unemployment on individuals in the United States on pages 158–159 of the Student Book.

4.7.6 Policies to reduce unemployment

The policies that can be used to reduce unemployment will depend on what type of unemployment it is.

Type of unemployment	Policies to reduce unemployment
Frictional unemployment	Supply-side policies could be used to reduce frictional unemployment, e.g. reducing unemployment benefits and/or increasing the accuracy and availability of information about employment vacancies.
Structural unemployment	Supply-side policies could also be used to reduce structural unemployment, e.g. improving the quality of training and education in an attempt to improve the occupational mobility of labour and/or increasing subsidies to industries in areas of high unemployment.
Cyclical unemployment	Demand-side policies could be used to reduce cyclical unemployment, e.g. expansionary fiscal policy through an increase in government expenditure and a reduction in the level of taxation, and expansionary fiscal policy through an increase in the money supply and a reduction in the rate of interest.

The effectiveness of policies to reduce unemployment in an economy will depend on a number of possible factors.

- whether a government has identified the type and cause of unemployment correctly
- whether a government has correctly identified which skills need increasing
- whether industries will use subsidies to increase the employment of workers
- whether a government has accurately calculated by how much to increase the total demand in an economy. If it underestimates the amount, it will not have a significant effect on the reduction of unemployment, whereas if it overestimates the amount, it could have an inflationary effect on the economy.

Exam tip

Make sure you understand that the effectiveness of policies to reduce the level of unemployment in an economy will depend on whether a government has correctly identified the causes of that unemployment.

Common error

Some candidates assume that it is only demand-side policies that can be used to reduce the level of unemployment in an economy, but supply-side policies can also have an important role to play, especially when the unemployment is frictional and/or structural.

Exam

The selection of appropriate policies to reduce the level of unemployment in an economy will depend on whether the unemployment is:

- frictional
- structural
- cyclical.

Practice

Discuss the factors that can determine the likely effectiveness of policies to reduce unemployment in an economy.

You need to know:

- the definition of inflation and deflation
- the measurement of inflation and deflation using the consumer prices index (CPI)
- the causes of inflation: demand-pull and cost-push; the causes of deflation: demand side and supply side
- the consequences of inflation and deflation for consumers, workers, savers, lenders, firms and the economy as a whole
- the range of policies available to control inflation and deflation and how effective they might be

4.8.1 Definition of inflation and deflation

Inflation can be defined as a persistent or sustained rise in the general level of prices in an economy over a period of time.

Deflation can be defined as a persistent or sustained decrease in the general level of prices in an economy over a period of time. It is actually a situation of negative inflation.

Exam tip

Remember that when there is a situation of inflation in an economy, it does not mean that the prices of all goods and services are increasing. It simply means that there is a persistent and sustained increase in the general or average level of prices in an economy over a period of time.

Common error

Candidates sometimes state that deflation refers to a decrease in the rate of inflation in an economy, but this is incorrect. If the rate of inflation in an economy falls from 5% to 2%, there is still an increase in the general level of prices; it just means that prices are rising at a slower rate. The term **disinflation** refers to this situation of a fall in the rate of inflation in an economy.

Key terms

Inflation: the increase in the general level of prices in an economy over a period of time

Deflation: the decrease in the general level of prices in an economy over a period of time

Disinflation: a fall in the rate of inflation in an economy

Summary

It is important to distinguish between inflation and deflation.

- Inflation is the increase in the general level of prices in an economy over a period of time
- Deflation is the decrease in the general level of prices in an economy over a period of time

Activity

Distinguish between inflation and deflation

Link

The measurement of inflation and deflation is covered in section 4.8.2

4.8.2 Measurement of inflation and deflation

Consumer prices index (CPI)

Inflation and deflation in an economy are measured through the use of a price index, such as a consumer prices index (CPI). An index such as this measures changes in general or average prices in an economy over a year.

There are a number of different elements involved in the construction of a price index:

Selection of a **base year**	A base year, one in which there were no dramatic changes in prices, is selected and given a figure of 100. All price levels in subsequent years are compared to this base year.
Selection of a **basket of products**	A basket of typical goods and services purchased by an average or typical family in an economy is selected. This is arrived at through surveys of household expenditure.
Selection of **weights**	Families do not spend an equal proportion of income on different products; a relatively higher proportion of income is spent on some products than others so weights are given to reflect these spending patterns and the proportion of income spent on different items in the basket.
Construction of a weighted price index	This involves multiplying the weight for each item by the price index of that item.

The weighted price index is then divided by the total number of weights in order to find out the rate of inflation or deflation.

An example is given below to show how the rate of inflation can be calculated when there are four categories of expenditure in an economy.

- Food has a weight of four and food prices have increased by 20%.
- Clothing has a weight of two and clothing prices have increased by 10%.
- Transport has a weight of one and transport prices have decreased by 10%.
- Other household goods have a weight of three and the prices of other household goods have increased by 30%.

Product category	Weight price index	Weighted price index
Food	4 x 120	480
Clothing	2 x 110	220
Transport	1 x 90	90
Other household goods	3 x 130	390
Total		1,180

To find out the rate of inflation in this economy, the weighted price index of 1,180 is divided by the total number of weights 10:

$$\frac{1180}{10} = 118$$

The figure of 100 of the base year is then subtracted from the figure of 118 to show that the inflation rate is 18%.

Key terms

Base year: a year used as a basis for comparison when creating a prices index and given a value of 100

Basket of products: a representative selection of goods and services bought by a typical household in an economy

Weight: a measure of the importance attached to goods and services appearing in a prices index, the higher the weight, the greater the proportion of income spent on a product

▲ **Figure 80** *A CPI is used to measure the changes in the prices of a basket of products, such as can be seen in this supermarket in Kenya*

▲ **Figure 81** *A basket of goods and services used in a prices index can be compared to the contents of a shopping basket bought by a typical household in an economy*

Problems with using a prices index

There are a number of possible problems involved in the use of a price index to measure inflation or deflation in an economy.

- The weights in the index may not reflect accurately how price changes can affect different households because they are general, for example, there will be a weight for food, but the proportion of income spent on food by a relatively poor person is likely to be higher than the proportion of income spent on food by a relatively rich person.
- Comparisons are made with a base year, but it is possible that the year chosen to be the base year may not have been a typical year, distorting any comparisons that are made.
- The prices of some products in the basket may vary a great deal, for example, fuel and food.

Exam tip

Make sure that you are able to describe the various steps involved in the construction of a prices index, such as the selection of a base year and the attachment of weights to particular products.

Recap

There are various stages involved in the construction of a prices index.

- selection of a base year
- selection of a typical basket of products
- selection of weights
- construction of a weighted price index

Apply

Explain how an index such as the CPI is constructed.

Signpost

There is a case study on changing inflation in Kenya on page 161 of the Student Book.

4.8.3 Causes of inflation and deflation

Causes of inflation

There are two main causes of inflation. These are demand-pull factors and cost-push factors.

Demand-pull inflation occurs in an economy when total demand is greater than total supply pulling up the general level of prices. For example when people have more money to spend, the level of demand for goods and services is likely to rise. There is a situation of excess demand in an economy that cannot be met by supply. Such a situation is likely to occur as an economy reaches, or is close to, full employment. One particular form of demand-pull inflation is **monetary inflation** where the excess demand in an economy is caused by an excessive growth of the money supply.

Cost-push inflation occurs in an economy as a result of an increase in production costs, with firms passing on these increases in costs to consumers in the form of rising prices.

There are various causes for the increases in the costs of production:

Raw material costs	If the costs of raw materials rise, e.g. oil and energy costs, there is likely to be an effect on many prices in an economy.
Wage costs	If employees are able to negotiate higher wages this will push up the costs of production for firms unless the higher wages are linked to higher levels of productivity.
Land costs	If the demand for land is greater than the supply, this will push up costs.
Exchange rate rises	If a country's exchange rate is devalued, or is allowed to depreciate against other countries' currencies, it will make imported goods, such as raw materials or component parts, more expensive, pushing up prices.

▲ **Figure 82** *Increases in the cost of oil are a major cause of cost-push inflation*

Key terms

Demand-pull inflation: a general rise in prices caused by an increase in the demand for products in an economy that is greater than the ability of an economy to supply

Monetary inflation: a form of demand-pull inflation caused by excessive growth of the money supply of an economy

Cost-push inflation: a general rise in prices caused by an increase in production costs that are passed on to consumers

Exam tip

Make sure that you are able to distinguish between demand pull inflation and cost-push inflation in an economy.

Exam tip

It is useful to be able to distinguish between benign or good deflation and malign or bad deflation. Benign deflation resulting from the supply side can bring about an increase in output of products leading to the possibility of more products at lower prices. Malign deflation resulting from the demand side can bring about a lower demand, a decrease in output and an increase in unemployment.

Causes of deflation

Like inflation, deflation can be caused by demand-side and supply-side factors.

Demand-side factors include the following:

- If there is a decrease in the demand for goods or services, causing a shift of a demand curve to the left while supply remains constant, this will have the effect of causing prices to fall. For example, at a time of recession, a general fall in the demand for products could lead to deflation.
- If there is a decrease in the money supply in an economy and/or an increase in interest rates, this is likely to reduce total demand leading to a fall in prices.
- When deflation is caused by an increase in total demand in an economy, it is regarded as 'bad' or 'malign' deflation.

Supply-side factors include the following:

- If there is an increase in the supply of goods and services in an economy, as a result of advances in technology and/or increases in productivity, causing a shift of a supply curve to the right while demand remains constant, this will have the effect of causing prices to fall.
- When deflation is caused by an increase in total supply in an economy, it is regarded as 'good' or 'benign' deflation.

Recap

Both inflation and deflation can be caused by demand-side factors and supply-side factors.

Activity

Distinguish between demand-pull and cost-push inflation.

4.8.4 Consequences of inflation and deflation

	Consequences of inflation	Consequences of deflation
Consumers	Consumers will be discouraged from buying products because the prices of these products are continually rising.	Consumers will be encouraged to buy products because the prices of these products are continually falling. However, if they think that prices are going to continue to fall, they may decide to postpone expenditure.
Workers	Workers will find that their wages and salaries are worth less in real terms – they can buy less with their money. This will mean that they will need to negotiate wage increases that are at least equal to the rate of inflation.	Workers will find that their wages and salaries are worth more in real terms – they can buy more with their money. However, a prolonged period of deflation with firms reluctant to expand could lead to an increase in unemployment.
Savers	Savers will find that during a period of inflation savings lose their real value, so savers will be discouraged from saving.	Savers will find that during a period of deflation savings increase their real value, so savers will be encouraged to save.
Lenders	Lenders of money will be discouraged from lending because the money they receive back from borrowers will be worth less. Borrowers, on the other hand, will be encouraged to borrow money because inflation will make the debt less in real terms.	Lenders of money will be encouraged to lend because the money they receive back from borrowers will be worth more. Borrowers, on the other hand, will be discouraged to borrow money because deflation will make the debt more in real terms.
Firms	Inflation will impose extra costs on firms, making it more difficult for them to make a profit. There will also be **menu costs** and **shoe leather costs** of inflation. Inflation also creates uncertainty and can make firms reluctant to invest.	Deflation will encourage consumers to buy more products, making it easier for them to make a profit. However, firms may be discouraged from investing if they think they are going to continue to receive lower prices for their products. In this situation, the profit margins of firms could fall.
The economy as a whole	The extent of the effect of inflation on the economy as a whole will depend on the rate of inflation and how it compares with the rate of inflation in other countries. For example, if the rate of inflation in a country is higher than in other economies, this will make its exports less competitive in international markets and this could cause a worsening in the current account balance of the balance of payments.	A period of prolonged deflation could lead to a rise in unemployment and lower output. This is likely to reduce the rate of economic growth in an economy. If savers save more as a result of deflation, they will spend less and this reduction in total demand could lead to a decrease in output and an increase in unemployment, leading to an increasing spiral of deflation.

Recap

There are consequences of inflation and deflation for

- consumers
- workers
- savers
- lenders
- firms
- the economy as a whole

Discuss

Discuss the consequences of inflation and deflation for savers.

Case study

There is a case study on page 169 of the Student Book on deflation in Japan.

Key terms

Menu costs: the costs of continually having to change the prices of goods and services as a result of inflation

Shoe leather costs: the costs, in the form of time and effort, of having to find good financial returns during a period of inflation

4.8.5 Policies to control inflation and deflation

Policies to control inflation

Type of policy	Impact of policy
Fiscal policies	Contractionary fiscal policies would be useful for demand pull inflation. For example, an increase in the rates of taxation and/or a reduction in government spending could lead to a reduction in total demand in an economy.
Monetary policies	Contractionary monetary policies would be useful for demand pull inflation. For example, an increase in the rates of interest and/or a reduction in the money supply could lead to a reduction in total demand in an economy.
Supply-side policies	Supply-side policies would be useful for cost push inflation. For example, an improvement in education and training and/or an increase in privatisation and subsidies could lead to an increase in total supply in an economy.

The effectiveness of policies to reduce inflation in an economy will depend on a number of possible factors.

- Households and firms will react to the policies to different extents.
- Contractionary fiscal and monetary policies can also have adverse effects in an economy, such as reducing employment and economic growth.
- It may take some time before supply-side policies become effective.
- Supply-side policies can also be quite expensive to carry out.
- Subsidies can be expensive and they have an opportunity cost.

Policies to control deflation

A government is not likely to be too concerned about good or benign deflation caused by an increase in total supply in an economy, but it is likely to be concerned about bad or malign deflation caused by a decrease in total demand in an economy.

In such a situation, a government would be likely to use

- expansionary fiscal policy, for example, reduced taxation and/or increased government expenditure
- expansionary monetary policy, for example, reduced interest rates and/or increased money supply.

The effectiveness of policies to reduce deflation in an economy will depend on a number of possible factors.

- If deflation has existed for some time, interest rates are likely to be relatively low already so there may be little scope to reduce them any further.
- Confidence in the economy is likely to be relatively low so cuts in tax rates may not encourage households and firms to increase their spending.

Fiscal policies, monetary policies and supply-side policies can be used to control inflation and deflation

Explain how deflation could be controlled in an economy.

Prices and income policies as a way of helping to create price stability in an economy are considered on page 171 of the Student Book.

Exam-style question 1

a. Define the term 'fiscal policy' [2]

b. Explain **two** reasons for taxation. [4]

c. Analyse **three** qualities of a good tax. [6]

d. Discuss whether a government should plan for a budget deficit [8]

Analysis

✓ In (a), you will need to clearly define the term 'fiscal policy' in terms of its relationship to the balance between government revenue and government expenditure.

✓ In (b), you will need to explain two reasons for taxation, such as to raise revenue to pay for government spending and to discourage the consumption of demerit goods, such as alcohol and cigarettes.

✓ In (c), you will need to analyse three qualities of a good tax, such as being economical to collect, fit for purpose and simple to understand and pay.

✓ In (d), you will need to discuss whether a government should plan for a deficit budget, that is, you will need to consider both the advantages and the disadvantages of such an aim.

Mark scheme

a. One mark for a reference to government revenue; one mark for a reference to public expenditure. [2]

b. Up to two marks for an explanation of one reason for taxation; up to two marks for an explanation of a second reason. [4]

c. Up to two marks each for an analysis of three qualities of a good tax. [6]

d. Up to five marks for the view that a government should plan for a budget deficit, stressing the advantages of such a policy; up to five marks for the view that a government should not plan for a budget deficit, stressing the disadvantages of such a policy. [8]

Student answer

(a) Fiscal policy is concerned with the study of how a government raises the revenue that it needs, that is, it focuses on the different types of tax that are used in an economy to raise money. [1 mark]

(b) One reason for taxation is to redistribute income from the rich to the poor in an economy. A second reason for taxation is to discourage the consumption of certain products. [2 marks]

(c) One quality of a good tax is that it should be economical to collect. A second quality is that a tax should satisfy the principle of equity. A third quality is that a tax should be simple to understand. [3 marks]

(d) A government should plan for a budget deficit because this will help a government to achieve a number of its objectives. For example, by putting more money into an economy, this should help to create an increase in total demand and this should lead to the creation of more jobs, leading to a decrease in the rate of unemployment in an economy. [3 marks]

Total mark: 9/20

a. The candidate has referred to one aspect of fiscal policy, the raising of revenue through different taxes, but there is no reference to the other aspect of fiscal policy, public expenditure, and no reference to the fact that fiscal policy is about the balance between revenue and spending in terms of whether a government is planning for a budget deficit or a budget surplus.

b. The candidate has correctly given two reasons for taxation but neither of them has really been explained. The answer really needed to be developed more fully. For example, for the first reason the candidate could have discussed the importance of progressive taxes in the redistribution of income. For the second reason, reference could have been made to the discouragement of demerit goods. Appropriate examples could have been included to support the explanation, such as alcohol and cigarettes.

c. The candidate has stated three qualities of a good tax, but there is no attempt to analyse any of them. There needs to be some evidence of analysis in order to get above three marks. For example, for the third quality the candidate could have analysed why it is important that a tax is relatively easy to understand because if that is the case people are more likely to be willing to pay taxes and this will limit the extent to which people avoid or evade taxes, increasing the amount of money raised by a tax.

d. The candidate has not explained what is meant by a budget deficit, that is a situation where government expenditure is greater than public revenue. One reason for running a budget deficit, the reduction of unemployment, has been mentioned, but other reasons could have been given as well. For example, government spending on education and training could help to increase the rate of economic growth in an economy. The major weakness of the answer is that it is entirely one-sided. There is no consideration of the possible disadvantages of a budget deficit, such as the potential impact of a budget deficit on the rate of inflation in an economy with inflation pulled up by the excess demand in the economy compared with total supply.

Exam-style question 2

a. Define the term 'monetary policy'. [2]

b. Explain the difference between narrow and broad money supply. [4]

c. Analyse why quantitative easing might be used by a government. [6]

d. Discuss whether contractionary monetary policy should be used by a government to reduce the rate of inflation in a country. [8]

Analysis

✓ In (a), you will need to clearly define the term 'monetary policy' in terms of both the price of money (the interest rate) and the stock of money (the money supply).

✓ In (b), you will need to explain the difference between narrow and broad money supply, stressing that narrow money refers to money that is primarily held in current accounts whereas broad money also includes money that is held in deposit accounts.

✓ In (c), you will need to explain what is meant by quantitative easing and then go on to analyse why such a policy might be used by a government.

✓ In (d), you will need to discuss whether contractionary monetary policy should be used by a government to reduce the rate of inflation in an economy, contrasting the possible advantages of such a policy with the disadvantages.

Mark scheme

a. One mark for a reference to the price of money; one mark for a reference to the supply of money [2]

b. Up to two marks for an explanation of narrow money supply; up to two marks for an explanation of broad money supply [4]

c. Up to two marks for an explanation of what is meant by quantitative easing, up to two marks for an analysis of why quantitative easing might be used by a government; up to two marks for an analysis of the potential disadvantages of quantitative easing. [6]

d. Up to five marks for the view that contractionary monetary policy should be used by a government to reduce the rate of inflation in a country, stressing the advantages of such a policy; up to five marks for the view that contractionary monetary policy should not be used by a government to reduce the rate of inflation in a country, stressing the disadvantages of such a policy. [8]

Student answer

(a) Monetary policy refers to the use of changes in the price of money, that is, the rate of interest and/or changes in the stock of money, the money supply, to affect the total demand in an economy. [2 marks]

(b) Narrow money refers to the notes, coins and current accounts held in commercial banks, this measure focuses on money that is mainly used as a medium of exchange. Broad money supply includes narrow money as well as money that has been deposited in deposit accounts, this measure focuses not only on money that is mainly used as a medium of exchange, but also on money that is used as a store of value. [4 marks]

(c) Quantitative easing might be used by a government to stimulate the level of total demand in an economy. The effect of this is that spending will be encouraged, helping to avoid a recession. [2 marks]

(d) A contractionary monetary policy could be used by a government to reduce the rate of inflation in a country. Interest rates could be increased and/or the supply of money could be reduced. However, the success of such a policy will depend on how responsive demand will be to a change in the rate of interest. If demand is responsive to a change in the rate of interest, then an increase in the interest rate could be effective in reducing inflation, but if demand is not very responsive to such a change, it will not have much of an impact. [4 marks]

Total mark: 12/20

a. The candidate has referred to both the price of money, the rate of interest, and the stock of money, the money supply.

b. The candidate has demonstrated a good understanding of the distinction between narrow and broad money, gaining all four marks.

c. The candidate has pointed out that quantitative easing might be used by a government to stimulate the level of demand in an economy and that this might help a country avoid a recession. However, there is no explanation of what quantitative easing is, that is, a situation that involves a government buying financial assets, enabling more money to be released into the economy, nor are the possible disadvantages of such a policy considered, such as the fact that it could lead to an increase in the rate of inflation in an economy.

d. The candidate has explained how such a policy could operate through an increase in the interest rate and/or a decrease in the money supply and has attempted to offer a consideration of how likely such a policy will be a success, but there is no consideration of the fact that although it might help to control inflation, it could have negative consequences elsewhere in an economy, such as an increase in the level of unemployment.

Exam-style question 3

a. Define the term 'supply-side policy'. [2]

b. Explain how lower direct taxes can be used as a supply-side policy measure. [4]

c. Analyse how deregulation could improve the level of efficiency in an economy. [6]

d. Discuss how successful supply-side policy measures are likely to be in achieving a government's macroeconomic aims. [8]

Analysis

✓ In (a), you will need to clearly define the term 'supply-side policy', stressing that it influences an economy from the supply side rather than the demand side

✓ In (b), you will need to explain how lower direct taxes can be used as a supply-side policy measure, using appropriate examples to support the explanation

✓ In (c), you will need to analyse how deregulation could improve the level of efficiency in an economy

✓ In (d), you will need to consider some of the possible supply-side measures that could be used to help achieve a government's macroeconomic aims and then to go on to discuss the likely success of such policies

Mark scheme

a. One mark for a contrast between the supply side and the demand side; one mark for at least one example of a supply-side policy to demonstrate an understanding of the term. [2]

b. Up to two marks for an explanation of the meaning of direct taxes, with an appropriate example; up to two marks for an explanation of how the lowering of direct taxes can be seen as a supply-side measure [4]

c. Up to two marks for an explanation of deregulation; up to two marks on efficiency; up to two marks on the link between deregulation and greater efficiency in an economy. [6]

d. Up to five marks for the view that supply-side policy measures should be used by a government to achieve its macroeconomic policy aims, stressing the advantages of such a policy; up to five marks for the view that supply-side measures should not be used by a government to achieve its macroeconomic policy aims, stressing the disadvantages of such a policy. [8]

Student answer

(a) Whereas fiscal policy and monetary policy concentrate on achieving their objectives through influencing the level of total demand in an economy, supply-side policy focuses on trying to influence the level of output and production in an economy. [1 mark]

(b) Direct taxes can be used as a supply-side measure, such as when taxes on profits are reduced allowing firms to use the extra money to finance improvements. [2 marks]

(c) Deregulation could improve the level of efficiency in an economy by allowing it to work more flexibly through the removal of restrictive regulations. [2 marks]

(d) Supply-side policy measures could help a government achieve its macroeconomic aims. For example, improvements in education and training could lead to a higher rate of economic growth. The emphasis on increasing supply would mean that such economic growth could be achieved without causing an increase in the rate of inflation. The emphasis on more flexible labour markets could also lead to the rate of unemployment decreasing. [4 marks]

Total mark: 9/20

Examiner feedback

a. The candidate has contrasted the supply side with the demand side, but has not included an appropriate example of supply-side policy, such as a reduction in trade union power in labour markets.

b. The candidate has not explained what is meant by a direct tax (a tax imposed on income rather than on expenditure). Also, the reference to improvements is very vague and needs to be explained more clearly as an increase in production and output.

c. The candidate has not really gone very far in explaining the term deregulation and there needs to be a closer link between deregulation and efficiency, such as by pointing out that less regulation is likely to lead to lower costs of production and quicker and more responsive decision making.

d. The candidate has offered a one-sided answer and has not really considered the 'how successful' part of the question. For example, the candidate could have pointed out that supply-side measures are often very expensive and can take a long time to have an effect.

Exam-style question 4

a. Define the term 'economic growth' [2]

b. Explain the difference between nominal GDP and real GDP. [4]

c. Analyse **two** causes of economic growth. [6]

d. Discuss whether the benefits of economic growth outweigh the costs. [8]

Analysis

✓ In (a), you will need to clearly define economic growth in terms of the increase in output in a country over a period of time.

✓ In (b), you will need to clearly demonstrate you understand that whereas nominal GDP does not take inflation into account, real GDP does.

✓ In (c), you will need to analyse two causes of economic growth, and these can be from the supply side or the demand side

✓ In (d), you will need to consider the various costs and benefits of economic growth

Mark scheme

a. One mark for a reference to an increase in output or production, one mark for a reference to a period of time over which an economy has grown. [2]

b. Up to two marks for an explanation of GDP, up to two marks for an explanation of the difference between nominal GDP and real GDP [4]

c. Up to three marks for an analysis of each of two causes of economic growth [6]

d. Up to five marks for a consideration of the potential benefits of economic growth, stressing its potential advantages; up to five marks for a consideration of the potential costs of economic growth, stressing its potential disadvantages. [8]

Student answer

(a) Economic growth refers to an increase in the output of an economy. [1 mark]

(b) Nominal GDP does not take inflation into account, whereas real GDP does. [2 marks]

(c) One cause of economic growth is improvement in the education and training systems in a country. Another cause of economic growth is improvement in an economy's infrastructure. [2 marks]

(d) Economic growth has a number of potential benefits. It can lead to an increase in living standards and less reliance on foreign aid. It can encourage investment if it is thought that the growth is likely to continue and it can lead to an increase in the number of jobs available, reducing the level of unemployment in an economy. It could lead to an increase in exports, improving the current account of the balance of payments. However, economic growth can also have costs associated with it, such as increased pollution. [4 marks]

Total mark: 9/20

Examiner feedback

a. The candidate has referred to an increase in the output of an economy but has not related this to a particular period of time.

b. The candidate has recognised that nominal GDP is not adjusted to take into account the effects of inflation whereas real GDP is adjusted. However, there is no attempt to explain what is meant by GDP. The candidate could have stated that GDP refers to gross domestic product and that this is the total output produced within the domestic boundaries of a country over a year.

c. The candidate has referred to two causes of economic growth, but they are listed, not analysed. For example, the infrastructure could have been analysed in terms of the energy system, including gas, electricity and water distribution, and the transportation system, including rail, road and air transport, and the impact of each of these on economic growth could have been explored.

d. The candidate has considered a number of potential benefits of economic growth, but the answer only briefly refers to one possible cost or disadvantage of economic growth, pollution. The candidate could have considered more possible costs of economic growth, including the depletion of scarce resources, the uneven sharing of the benefits of growth, the possible increase in unemployment resulting from a move from labour-intensive to capital-intensive production and a possible reduction in the quality of life resulting from working longer hours.

Exam-style question 5

a. Define the term 'labour force'. **[2]**

b. Describe the two ways in which unemployment is measured **[4]**

c. Analyse frictional and structural unemployment. **[6]**

d. Discuss which policies are likely to be most effective in reducing the rate of unemployment in an economy. **[8]**

Analysis

✓ In (a), you will need to clearly define the term 'labour force', pointing out that a country's labour force includes both the employed and the unemployed.

✓ In (b), you will need to describe the two ways in which unemployment is measured in a country, making sure that the two methods are clearly distinguished.

✓ In (c), you will need to analyse two types of unemployment, frictional and structural unemployment.

✓ In (d), you will need to discuss the various policies that can be used to reduce the rate of unemployment in an economy, pointing out which of these are likely to be the most effective in achieving the objective.

Mark scheme

a. One mark for a reference to the employed; one mark for a reference to the unemployed. **[2]**

b. Up to two marks for each description of the method of measurement. **[4]**

c. Up to three marks for an analysis of frictional unemployment; up to three marks for an analysis of structural unemployment. **[6]**

d. Up to five marks for a consideration of the policies that could be used to reduce the rate of unemployment in an economy; up to five marks for a consideration of why some policies are likely to be more effective than other policies. **[8]**

Student answer

(a) The term 'labour force' refers to all those in an economy who are employed in some form of job. [1 mark]

(a) One way of measuring the number of employed in a country is through a claimant count. This method involves counting those people who are in receipt of unemployment benefits, but it may understate the number unemployed because there will be some people who are actively searching for work but who are not claiming any unemployment benefits [2 marks]

(c) Frictional unemployment refers to those unemployed people who are between jobs. Structural unemployment refers to those people made unemployed by changes in the structure of an economy. [2 marks]

(d) Unemployment in an economy can be brought down through a combination of three policies. Fiscal policy can be used to increase the level of total demand in an economy, and so reduce unemployment, by reducing taxes and/or increasing government expenditure and this could be achieved by planning for a budget deficit. Monetary policy can be used to increase the level of total demand in an economy, and so reduce unemployment, by reducing interest rates and/or increasing the supply of money in an economy. A third approach is through supply-side policy. For example, labour markets could be made more flexible by reducing the power of trade unions. Information about vacancies could be improved so as to increase the geographical mobility of labour. Education and training could be improved so as to increase the occupational mobility of labour. [5 marks]

Total mark: 10/20

a. The candidate has referred to the fact that a labour force consists of those employed in an economy, but has not referred to the fact that the term also includes the unemployed.

b. The candidate has provided quite a good answer on one of the two methods, the claimant count, but has made no reference at all to the other method, the labour force survey.

c. The candidate has offered brief descriptions of both frictional and structural unemployment, but has not made any real attempt to analyse either of them. For example, the candidate could have gone further on frictional unemployment by referring to different types of frictional unemployment, such as search unemployment, casual unemployment and seasonal unemployment. The candidate could also have gone further on structural unemployment by referring to regional and technological unemployment.

d. The candidate has made a reasonable attempt to consider the various policies that could be used to reduce the rate of unemployment in an economy, but has made no attempt to consider which of these policies is likely to be the most effective. For example, fiscal and monetary policies could be considered more effective in that rates of taxation and rates of interest can be changed quite quickly, whereas supply-side policies are usually expensive and take longer to have an impact. However, it could be argued that although fiscal and monetary policies might be more effective in the short term, supply-side policies might be more effective in the long term.

Exam-style question 6

a. Define the term 'inflation'. [2]

b. Describe how the rate of inflation in an economy can be measured. [4]

c. Analyse the consequences of deflation. [6]

d. Discuss which policies to control inflation in an economy are likely to be most effective. [8]

Analysis

✓ In (a), you will need to clearly define the term 'inflation', stressing that it refers to a general and sustained increase in prices over a period of time.

✓ In (b), you will need to describe in some depth how inflation in an economy can be measured, referring to a base year, a basket of goods and services and the idea of a weighted index.

✓ In (c), you will need to be able to analyse the consequences of deflation, both positive and negative.

✓ In (d), you will need to consider the various policies that can be used to control inflation in an economy and then discuss which of these are likely to be most effective in achieving the objective.

Mark scheme

a. One mark for reference to a general and sustained increase in prices in an economy; one mark for reference to a period of time. [2]

b. Up to four marks for a description of how the rate of inflation in an economy can be measured, including reference to a base year, a basket of goods and services, weights and the concept of a weighted price index. [4]

c. Up to three marks for an analysis of the positive consequences of deflation, up to three marks for an analysis of the negative consequences of deflation. [6]

d. Up to five marks for a consideration of the policies that could be used to reduce the rate of inflation in an economy; up to five marks for a consideration of why some policies are likely to be more effective than other policies. [8]

Student answer

(a) Inflation refers to a sustained increase in the general level of prices in an economy. [1 mark]

(b) Inflation in an economy is measured through the selection of goods and services in a typical household budget and investigating how these prices change over a period of time. [1 mark]

(a) Deflation has a number of negative consequences in an economy. Consumers will delay buying products if they think that prices are going to fall even further. If this leads to a fall in demand, firms may need fewer workers and so there could be an increase in unemployment. If firms receive lower prices, they will be reluctant to invest and as profits fall, it may lead to lower economic growth and possibly recession. [3 marks]

(b) Inflation in an economy can be controlled by policies that reduce total demand. For instance, fiscal policies, such as increases in taxation and/or reductions in government spending, can reduce demand and so reduce inflationary pressure. Monetary policies, such as increases in interest rates and/or reductions in the money supply, can also reduce demand and so inflationary pressure. [2 marks]

Total mark: 7/20

Examiner feedback

a. The candidate has correctly referred to inflation as a sustained increase in the general level of prices in an economy but has not made any reference to the time period.

b. The candidate has referred to a basket of goods and services but has not made any reference to a base year of 100, the existence of weights or the idea of a weighted price index.

c. The candidate has only referred to the disadvantages of deflation and has made no reference to possible advantages. For example, the candidate could have referred to the fact that in a period of deflation, when prices are falling, consumers will be able to buy more with a given sum of money. Also workers will find that their wages and salaries are now worth more in real terms. Savers will be encouraged to save because the value of their savings will have increased in real terms.

d. The candidate has referred to the existence of fiscal and monetary policies to reduce inflation, but has assumed that only demand-pull inflation exists, whereas the inflation could be cost-push. The candidate has made no reference to supply-side policies to bring down the rate of inflation in an economy, and yet such policies would be more appropriate if the inflation was cost-push rather than demand-pull. For example, an improvement in education and training and/or an increase in privatisation and subsidies could lead to an increase in total supply in an economy, easing the inflationary pressure. Also, the candidate has made no attempt to consider which of the policies to control inflation in an economy are likely to be most effective.

Unit 5:
Economic development

Your exam

Economic development is part of paper 1, multiple-choice questions, and paper 2, structured questions. Paper 1 is a 45-minute exam and makes up 30% of the total marks. Paper 2 is a 2 hour 15 minute exam and makes up 70% of the total marks.

Your revision checklist

Tick these boxes to build a record of your revision

Specification	Theme	Tick	Tick	Tick
5.1 Living standards	5.1.1 Indicators of living standards			
	5.1.2 Comparing living standards and income distribution			
5.2 Poverty	5.2.1 Absolute and relative poverty			
	5.2.2 Policies to alleviate poverty and redistribute income			
5.3 Population	5.3.1 The factors that affect population growth			
	5.3.2 The reasons for different rates of population growth in different countries			
	5.3.3 The effects of changes in the size and structure of population on different countries			
5.4 Differences in economic development between countries	5.4.1 Differences in economic development between countries			

You need to know:

- **real GDP per head and the Human Development Index (HDI); the components of real GDP and HDI, the advantages and disadvantages of real GDP and HDI**
- **reasons for differences in living standards and income; distribution within and between countries**

5.1.1 Indicators of living standards

Real GDP per head

Gross domestic product (GDP) can be used to measure economic growth. It can also be used as an indicator of living standards. However, it needs to be divided by the total population of a country to give a figure for GDP per head or per capita. It also needs to be adjusted for inflation so that real GDP per head is calculated at constant prices.

Real GDP per head is often used as an indicator of living standards because it measures the total output produced by a country within its own geographical boundaries, divides it by that country's population and adjusts it for inflation. If the figure is rising, it would suggest that living standards in that country are increasing because there is more to be shared by the people in the country.

However, the indicator has a number of disadvantages, including the following.

- Not all economic activity is declared because of the existence of a hidden, informal or underground economy.
- Not all goods and services will go through a market, that is, there will be no price attached to such products.
- It may be difficult to accurately measure the cost of certain items of government spending, such as defence.
- Real GDP does not take into account the quality of what has been produced.
- Real GDP per capita only focuses on material aspects – there is no consideration of political freedom. It is an indicator of living standards, but not necessarily of quality of life.
- The level of literacy in a country may be low, making it difficult to obtain accurate data.

Key terms

Gross national income (GNI): the sum of a country's GDP and the net income it receives from abroad

Human Development Index (HDI): an index used to measure human development using three components, standard of living, health and education

Exam tip

Although GDP is still used as an indicator of living standards, it is gradually being replaced by **gross national income (GNI)**. Whereas GDP only counts income received from domestic sources, GNI also includes net income received from abroad.

The Human Development Index (HDI)

The **Human Development Index (HDI)** is a broader indicator of living standards in a country. It was established for the United Nations Development Programme in 1990.

The HDI contains three elements:

- standard of living as measured by GNI per head at purchasing power parity
- health as measured by life expectancy at birth
- education as measured by mean years of schooling and expected years of schooling.

Since 2010, there has also been an **Inequality-Adjusted Human Development Index** that takes into account the extent of inequality in a country.

Key term

Inequality-Adjusted Human Development Index: a version of the HDI that takes into account the extent of inequality in a country

The advantages and disadvantages of the HDI

HDI has a number of advantages over real GDP per head as an indicator of living standards. It focuses on three components of living standards rather than just one and it is thus a broader indicator of living standards. However, there are also disadvantages of HDI. For example, it concentrates on too narrow a range of components, it does not take into account environmental aspects of production, and other components might be better (for example, infant mortality might be preferable to life expectancy). It used to be criticised for not taking inequality into account, but this is taken into account by the Inequality-Adjusted HDI.

Other indicators of living standards

The two main indicators of living standards are real GDP per head and HDI, but there are other indicators that can be used such as the Multidimensional Poverty Index (MPI) (this replaced the Human Poverty Index (HPI) in 2010), the Genuine Progress Indicator (GPI) and the Gender Inequality Index (GII).

Recap

- There are two main indicators of living standards: real GDP per capita and the HDI.
- There are other indicators of living standards that could be used, such as the Multidimensional Poverty Index (MPI).

Real GDP per head is covered in section 4.6.1. There is a case study on the GDP of different countries on pages 176–177 of the Student Book.

5.1.2 Comparing living standards and income distribution

Differences in living standards and income distribution within countries

Different standards of living are enjoyed by people within the same country and these differences can be significant for a number of reasons.

- The income distribution may be unequal where a large number of people have inherited, rather than earned, income and wealth
- Some people earn a higher income than others because of the type of work they do, especially when the income of skilled workers is compared with that of unskilled workers, and skilled workers may be concentrated in certain parts of a country
- Some people own their own businesses or are shareholders in businesses, and these people are likely to receive more money
- There may be more jobs available in certain parts of a country, enabling people living and working in those areas to earn an income.

Differences in living standards and income distribution between countries

Different standards of living can also be significant between countries for a number of reasons.

- One country's economy may be more successful in its production activities than another, especially when levels of productivity are compared.
- Standards of living will depend on the quality of the education and health care facilities provided.
- Some countries will have higher levels of capital investment than others, leading to the use of more advanced technology
- Countries will vary in infrastructure, in areas such as transportation and communication
- Some countries will have a greater abundance in natural resources than other countries, for example, oil.

It can be hard to compare countries that use different currencies although exchange rates are used to establish the value of one currency when compared with another.

Recap

Differences in living standards and income distribution can occur within countries as well as between countries

Explain why living standards are higher in some countries than others.

There is a useful table on page 181 of the Student Book that compares life expectancy at birth in different countries.

You need to know:

- **the difference between the two terms 'absolute poverty' and 'relative poverty'; the causes of poverty including unemployment, low wages, illness and age**
- **policies promoting economic growth, improved education, more generous state benefits, progressive taxation and national minimum wage**

5.2.1 Absolute and relative poverty

Definition of absolute and relative poverty

Absolute poverty is where people are defined as poor by a particular standard. This could be a lack of basic human needs, such as water, food and shelter. It could be only having a certain amount of money to live on. The World Bank defines absolute or extreme poverty as having to live on less than US$1.90 per day.

Whereas absolute poverty is measured against a particular standard, **relative poverty** involves making a comparison between poor people and rich people in a country. It relates to the existence of economic inequality. For example, it could be defined as a situation where a person is trying to live on 60% of average income.

Key terms

Absolute poverty: a situation of extreme poverty defined in relation to a particular standard or a particular daily sum of money to live on

Relative poverty: a situation of poverty defined in relation to others in a country, such as in terms of a percentage of average income

The causes of poverty

Poverty can be caused by a number of factors.

Unemployment	Poverty can be caused by people being unable to obtain regular employment, especially in those countries that do not have a social welfare system paying unemployment benefits to those out of work.
Low wages	Even if a person can obtain a job, the wages paid by an employer may be very low, especially in those countries that do not have a national minimum wage.
Illness	People who are regularly ill are going to find it difficult to keep a job. People suffering from mental and physical health problems are likely to find it particularly difficult to avoid poverty. This will be a problem in those countries that do not have a national health service.
Age	Old age is often closely associated with poverty, especially in those countries that do not pay pensions to the elderly.

Exam tip

Make sure that you are able to comment on some of the major causes of poverty, such as unemployment, low wages, illness and old age.

Recap

The causes of poverty include unemployment, low wages, illness and old age.

Activity

Explain the link between old age and poverty.

5.2.2 Policies to alleviate poverty and redistribute income

There are a number of policies that can be used to alleviate poverty and redistribute income in a country.

Economic growth	If there is sustained economic growth in a country over a number of years, the population will have access to more goods and services (as long as the rise in output is greater than the rise in population). This will lead to an increase in living standards and a decrease in poverty, although the extent to which this happens will depend on the equality of income and wealth in a country.
Improved education	Improvements in the quality of education, and also the widening of access to education, will improve the quality of the labour force, enabling people with the right qualifications to gain employment and increase their income. Improved training facilities will also alleviate poverty as those people with the right skills will be able to gain employment.
More generous state benefits	Improved social welfare and social security schemes will enable more generous state benefits to be paid out to ensure that the unemployed, the old and the ill receive a reasonable income.
Progressive taxation	Taxes that are progressive not only take a higher amount of tax from the more highly paid, but take a higher proportion of their income in tax; such taxation will have the effect of redistributing income from the rich to the poor.
National minimum wage	A national minimum wage could be introduced or increased in those countries that already have a national minimum wage, to ensure that employers are legally prevented from paying very low wages to workers. It is possible, however, that the introduction of such a wage, pushing up the costs of labour, could lead to firms employing fewer workers.
Other policies	The government could provide food subsidies to keep down food prices or provide merit goods such as health care to help reduce the extent of illness.

Recap

There are a number of policies that can be used to alleviate poverty and redistribute income, including:

- economic growth
- improved education
- more generous state benefits
- progressive taxation
- a national minimum wage

Activity

Explain how progressive taxation can redistribute income in a country.

Activity

There is a case study on pages 182–183 of the Student Book on two schemes to redistribute income in India, and a case study on page 185 on a range of policies to alleviate poverty in India.

You need to know:

- **birth rate, death rate, net migration, immigration and emigration**
- **how and why birth rates, death rates and net migration vary between countries**
- **the concept of an optimum population, the effects of increases and decreases in population size and changes in the age and gender distribution of population**

5.3.1 The factors that affect population growth

Population growth in a country is affected by a number of factors.

Birth rate	The birth rate is the ratio of total l ve b rths to total population in a country in a given time per od. If the birth rate of a country goes up, it will lead to population growth. The **general fertility rate** is the number of live births per thousand women between the ages of 15 and 44 years. It can also be measured by the number of children born to the average woman in her lifetime
Death rate	The death or mortality rate is the number of deaths per thousand of the population each year. If the death rate of a country goes down, it will ead to population growth. Two other mortality rates are also imponant. The **infant mortality rate** is the number of children less than one year old dy ng divided by the number of live births in a particular year. The **maternal mortality rate** is the number of deaths of women related to childbearing divided by the total number of live births in a parecular year
Net migration	Net migration refers to the difference between **immigration** the number of people moving into a country in a given time period and **emigration** the number of people moving out of a country in a given time period. f the number of imm grants moving into a country is greater than the number of emigrants leaving it, the net migration figure will be positive and there w be a growth in population

The factors that affect population growth are birth rate death rate and net migration

D stinguish between immigration and emigration

Key terms

Birth rate: the number of live births per thousand of the popu ation each year

General fertility rate: the number of live births per thousand women between the ages of 15 and 44 years

Death rate: the number of deaths per thousand of the popu ation each year

Infant mortality rate: the number of children less than one year old dying divided by the number of live births in a particular year

Maternal mortality rate: the number of deaths of women related to childbearing div ded by the tota number of live births in a particular year

Immigration: the number of peop e moving into a country in a given t me period

Emigration: the number of peopie moving out of a country in a given time period

Net migration: the difference between immigration into a country and emigration out of a country during a given time period

Key terms

Developing country: a low or middle income country characterised by relatively low or middle levels of real GDP per head, HDI and industrialisation, with higher birth rates and death rates than developed countries

Developed country: a high income country characterised by relatively high levels of real GDP per head, HDI and industrialisation, with lower birth rates and death rates than developing countries

5.3.2 The reasons for different rates of population growth in different countries

Differences in birth rates. Birth rates are usually higher in **developing countries** than in **developed countries** for a number of reasons.	People aim to have more children to counteract high levels of infant mortality. Children can add to household earnings once they start work. Knowledge about methods of birth control is generally less widespread in developing countries. The level of female employment can vary between countries and this can affect decisions about whether to have children or not. If there is a tendency to marry later, this could have an effect on the birth rate. In some countries, people may prefer to have a higher standard of living and do not want the expense of having children.
Differences in death rates. Death rates are usually higher in developing countries than in developed countries for a number of reasons.	The quality of and access to health care varies – there is usually better medical care in developed countries than in developing countries. Medical advances have brought down the death rate in most countries. Some countries inoculate more against certain diseases. A better diet can cause a fall in death rates. Countries vary greatly in knowledge about the importance of diet and nutrition. Also, the quality of food and water can vary enormously between countries; this is likely to influence death rates. Incomes tend to be lower in developing countries making it more difficult to pay for medical care. The drugs to combat and treat malaria and HIV/AIDS are very expensive. Developing countries tend to have fewer doctors, nurses and hospital beds per head of the population than developed countries.
Differences in net migration. There are a number of reasons to explain differences in immigration into and emigration out of countries.	Net migration will be influenced by the relative ease with which people can move between countries. People may move from one country to another as a result of war or civil disturbance. The extent of civil liberties and political freedom in a country may influence migration from one country to another. People may move from one country to another if they think that one economy is stronger than another and therefore they have a better chance of gaining employment and earning an income.

Recap

The reasons for different rates of population growth in different countries include variations between countries in terms of birth rates, death rates and net migration rates.

Question

Explain why death rates vary between countries.

5.3.3 The effects of changes in the size and structure of population on different countries

Optimum population

The concept of an optimum population refers to the ideal population of a country in relation to the availability of resources – the best ratio of people to the resources in an economy. If a country is considered to have a population that is too large in relation to its other resources, it is said to be overpopulated. If the population is too small in relation to its other resources, it is said to be underpopulated.

The effects of increases in population size

Benefits of an increase in population size	Disadvantages of an increase in population size
A country will be able to make more effective use of its economic resources as long as it is underpopulated.	If the increase in population is greater than the increase in output, there will be a fall in living standards because there will be a reduction in GDP per head.
There will be an increase in the number of potential workers. If the rise in the labour force is caused by the net immigration of skilled and qualified workers, this will lead to an increase in both the quantity and quality of workers.	If a country becomes overpopulated, there may not be enough output to satisfy the people, e.g. there could be a famine.
There will be more potential consumers so there will be an increase in the size of markets. Firms will be able to benefit from this, both in terms of increased revenue and reduced costs.	Increases in population size could lead to overcrowding, putting pressure on education and housing.
Extra demand for goods and services could lead to an increase in investment, improving the technological efficiency of production.	There could be significant negative environmental effects, such as in relation to pollution and the depletion of non-renewable resources.
	The increase in population could lead to a rise in unemployment.

The effects of decreases in population size

Benefits to a decrease in the population size	Disadvantages to a decrease in population size
If a country is above its optimum size and a decrease in population brings it to its optimum size, its resources will be more efficiently utilised.	There may not be enough people of working age, leading to a reduction in total supply in an economy.
If there is a high level of unemployment, a decrease in population size could lead to a reduction in the rate of unemployment.	If a country cannot supply all of the products wanted by its population, they may need to be imported and this could create difficulties in the current account of the balance of payments.
If there is a high level of inflation, a decrease in population size could reduce the extent of inflationary pressure, especially in relation to demand-pull inflation.	There will also be a decrease in the level of total demand in an economy and this could make firms reluctant to invest.
There may be a reduction in the effects of overcrowding and environmental issues.	

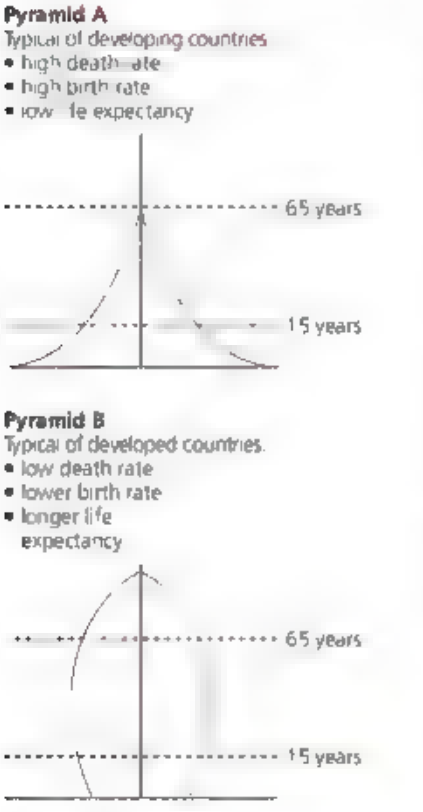
Changes in the age distribution of population

In the majority of countries in the world, the average age of people is increasing. This is known as an ageing population. Average life expectancy has increased, many countries now have a life expectancy at birth in the 70s or 80s. In some countries, over 20% of the population is over 60 years old.

There are both advantages and disadvantages of an ageing population. Older people can be an economic asset because of their greater experience and willingness to take on more responsibility and they can act as advisors and mentors to younger people who will benefit from the advice and guidance given. However, there will be an increase in the **dependency ratio** – that is, there will be more workers needed to support each retired person, there will be increased spending by the government for pensions and health care, and this is likely to lead to higher taxes for those in work, with the danger that higher taxes could be a disincentive for workers.

Key term

Dependency ratio: the number of people in a country who are unable to work divided by the number of people who are able to work



▲ **Figure 83** *Population pyramids to show the differences in life expectancy in developing and developed countries*

Changes in the gender distribution of population

In most countries, more boys than girls are born, but the infant mortality rate is higher for boys than girls. As a result, in most countries there are more girls than boys. This is significant, but its economic effect is being reduced. In many countries as female participation in the labour force is being encouraged. For example, some countries are providing nurseries and childcare facilities at subsidised rates to encourage mothers to go out to work.

The gender distribution in a country can be changed by government policy. For example, the one-child policy that was adopted by China for a number of years changed the male/female births ratio from 108/100 to 120/100.

However, there is still inequality between the wages of males and females, despite legislation being introduced in many countries in an attempt to end such inequality. It has been estimated that women make up 60% of the world's working poor.

Population pyramids

A population pyramid can be used to show the differences between certain features of population in various countries. For example, a population pyramid can show the differences in average life expectancy in developing and developed countries.

Recap

You need to understand the concept of an optimum population, the effects of increases and decreases in population size, changes in the age and gender distribution of population.

Discuss the effects of an increase in a country's population size.

There is a case study of underpopulation in Canada on page 192 of the Student Book.

You need to know:

- causes and impacts of differences in income; productivity; population growth; size of primary, secondary and tertiary sectors; saving and investment; education, and health care

5.4.1 Differences in economic development between countries

There are a number of factors that can explain the differences in **economic development** between countries

Differences in income	Greater levels of equality encourage economic development, educational opportunities for children from relatively poor households, social mobility and foster the development of skills
Productivity	Countries that have relatively high levels of economic development also have relatively high levels of productivity. This encourages economic growth. Countries with a high output per factor of production per hour tend to have a high income per head and a better standard of education and health care
Population growth	A larger population will be able to make more effective use of its economic resources. There will be an increase in the number of potential workers and more potential consumers. This extra demand for goods and services could lead to an increase in investment
Size of primary, secondary and tertiary sectors	The relative size of the three sectors in an economy will give an indication of the state of development
Saving and investment	The level of savings in an economy is crucial to economic development because this money can be used to finance investment
Education	Education is key to economic development. Some countries have a much better education system than others, especially at secondary and higher levels, and this enables the population to have appropriate qualifications to gain employment in skilled work
Health care	A relatively high standard of health care will increase the average life expectancy in a country and will help to make workers more productive as they will be less likely to be absent from work for health reasons

Key term

Economic development: a wider term than economic growth that takes into account the expansion of social and economic choices and the increase in self-esteem

▲ **Figure 84** *Education is a key aspect of economic development*

Recap

Differences in economic development between countries can be caused by:

- differences in income
- productivity
- population growth
- size of primary, secondary and tertiary sectors
- saving and investment
- education
- health care.

Activity

Distinguish between economic development and economic growth

Connect

Education and health care as examples of merit goods are covered in section 2.10. Primary, secondary and tertiary sectors are explained in section 3.3.3. Productivity is covered in section 3.6.3. Economic growth is covered in section 4.6. Population growth is covered in sections 5.3.1 and 5.3.2.

Exam-style question 1

a. Define the term 'real GDP'. [2]

b. Explain **two** disadvantages of using GDP per head as an indicator of living standards in a country. [4]

c. Analyse the key features of the Human Development Index (HDI). [6]

d. Discuss whether living standards between countries can be easily compared. [8]

Analysis

✓ In (a), you will need to clearly define the term 'real GDP', making it clear that 'real' means that it has been adjusted to take account of inflation.

✓ In (b), you will need to explain two disadvantages of using GDP per head as an indicator of living standards in a country, going beyond just a description of the disadvantages.

✓ In (c), you will need to analyse the key features of the HDI, focusing on its three components.

✓ In (d), you will need to discuss whether living standards between countries can be easily compared, looking at both points of view.

Mark scheme

a. One mark for a reference to GDP, one mark for a reference to real. [2]

b. Up to two marks each for an explanation of two disadvantages of using GDP per head as an indicator of living standards in a country. [4]

c. Up to two marks each for an analysis of the three components of HDI. [6]

d. Up to five marks for the view that living standards between countries can easily be compared; up to five marks for the view that living standards between countries are not easily compared. [8]

Student answer

(a) The term 'real GDP' means the total value of all that has been produced in a country over a given period of time without taking into account the effect of inflation. [1 mark]

(b) One disadvantage of using GDP per head as an indicator of living standards in a country is that not all economic activity is declared. A second disadvantage is that it only gives an indication of average incomes. [2 marks]

(c) The Human Development Index (HDI) consists of three components. The first component is the standard of living. This is measured by GNI (gross national income) per head at purchasing power parity. The second component is health. This is measured by life expectancy at birth. The third component is education and this is measured in two ways; these are the mean years of schooling and the expected years of schooling. [6 marks]

(d) Living standards between countries can be compared between countries through real GDP per head or through the Human Development Index. Both of these are very useful indicators to compare living standards. However, there are difficulties associated with making such comparisons. In one country, production could be focused on products that are wanted by people, but in another country a great deal of GDP could be accounted for by production of military goods. Also, there is an emphasis on quantity, not quality, and the quality of output in one country may be better than in another. A further problem is the need to take into account that the exchange rate between currencies could regularly change. [5 marks]

Total mark: 14/20

Examiner feedback

a. The candidate has correctly defined GDP, but is confused over the meaning of 'real.' The use of this word means that inflation has been taken into account, whereas the candidate seems to think that inflation has not been taken into account.

b. The candidate has identified two disadvantages of using GDP per head as an indicator of living standards in a country, but has not really explained either of them. For example, in terms of the first point, there could have been reference to the existence of a hidden, informal or underground economy. In terms of the second point, the candidate could have gone further by pointing out that an average income figure might hide a high degree of income inequality.

c. This is a very good analysis of the key features of the HDI. All three components are considered and there is an attempt to analyse each of them.

d. The candidate has considered both points of view, but the answer is rather unbalanced and there needed to be more written at the beginning on how it is not that difficult to compare living standards between different countries.

Exam-style question 2

a. Define the term 'net migration'. [2]

b. Explain **two** reasons why birth rates vary between countries. [4]

c. Analyse what is meant by an optimum population [6]

d. Discuss whether an ageing population is a major problem for a country. [8]

Analysis

✓ In (a), you will need to clearly define the term 'net migration', stressing that it is the difference between immigration and emigration.

✓ In (b), you will need to explain clearly why birth rates vary between countries, such as because of knowledge of contraception or because of differences in the average age of marriage.

✓ In (c), you will need to analyse clearly what is meant by an optimum population, stressing that the concept of 'optimum' relates to the best or ideal situation.

✓ In (d), you will need to discuss whether an ageing population is a major problem for a country or whether it can be advantageous for an economy.

Mark scheme

a. One mark for a definition of migration; one mark for a definition of net. [2]

b. Up to two marks each for an explanation of two reasons why birth rates vary between countries. [4]

c. Up to three marks for an analysis of optimum; up to three marks for an application of the concept to population, including overpopulated and underpopulated. [6]

d. Up to five marks for the view that an ageing population is a major problem for a country; up to five marks for the view that there may be advantages to an economy of an ageing population. [8]

Student answer

(a) Migration refers to people moving between countries. [1 mark]

(b) One reason why birth rates vary between different countries is that people may decide to have many children in those countries where the infant mortality rate is high. Another reason is due to differences in knowledge about methods of contraception. [2 marks]

(c) An optimum population is a population that is regarded as good or best for a country. [1 mark]

(d) An ageing population can have a number of disadvantages. It is likely to lead to an increase in the dependency ratio of a country, that is, more workers will be needed to support each retired person. The government will need to spend more on the old, such as paying for their pensions. Those in work may need to pay higher taxes and this will not be popular with them, possibly leading to a disincentive effect. There could be a shortage of workers and this might mean that average wages go up, increasing costs of production for firms. Older workers are likely to be relative immobile, both geographically and occupationally. There is likely to be a change in the pattern of demand, away from younger people towards older people, and some firms may be slow to respond to this change. [5 marks]

Total mark: 9/20

Examiner feedback

a. The candidate has a basic understanding that migration is about the movement of people between countries, but there is no reference to immigration, where people move into a country, or to emigration, where people move out of a country. Also, there is no reference to net migration which is the difference between the number of immigrants and the number of emigrants over a given period of time.

b. The candidate has identified two reasons for the differences in birth rates, but has not really explained them. For example, in the first point, there is no attempt to explain the meaning of the term 'infant mortality rate'. In the second point, there is a reference to knowledge about methods of contraception, but there is no explicit attempt to link this to the birth rate of a country.

c. This is a very limited answer that gains just one mark for the reference to good or best. The candidate needed to develop the answer more fully in terms of the link between a country's population and its other resources. The candidate needed to get across the idea that an optimum population is the best ratio of people to the resources in an economy. The candidate could then have developed the answer in terms of overpopulation and underpopulation.

d. The candidate has given a good account of a number of disadvantages of an ageing population, but the answer is entirely one-sided so five marks is the maximum mark that could be given. In order to get a mark of more than five, the candidate needed to look at the other point of view and consider some potential advantages to an economy of an ageing population, for example, the idea that older people will have a great deal of knowledge and experience and this could be seen as an economic asset. Also, old people could act as mentors to provide advice and guidance to younger workers, helping to point them in the right direction.

Unit 6:
International trade and globalisation

Your exam

International trade and globalisation is part of paper 1, multiple-choice questions, and paper 2, structured questions. Paper 1 is a 45-minute exam and makes up 30% of the total marks. Paper 2 is a 2 hour 15 minute exam and makes up 70% of the total marks.

Tick these boxes to build a record of your revision

Your revision checklist

Specification	Theme	Tick	Tick	Tick
6.1 National specialisation	6.1.1 Specialisation at a national level			
6.2 Globalisation, free trade and protection	6.2.1 Globalisation and the role of multinational companies			
	6.2.2 The benefits of free trade			
	6.2.3 The methods of protection			
	6.2.4 The reasons for and consequences of protection			
6.3 Foreign exchange rates	6.3.1 Definition of foreign exchange rates			
	6.3.2 Determination of the foreign exchange rate in the foreign exchange market			
	6.3.3 Causes and consequences of foreign exchange rate fluctuations			
6.4 Current account of balance of payments	6.4.1 Structure of the current account of the balance of payments			
	6.4.2 Causes and consequences of a current account deficit and surplus			
	6.4.3 Policies to achieve balance of payments stability			

You need to know:

- **the basis for specialisation at national level in broad terms of superior resource allocation and/or cheaper production methods; the advantages and disadvantages of specialisation at a national level for consumers, firms and the economy**

6.1.1 Specialisation at a national level

There are two key factors in the basis for specialisation at national level:

- Superior resource allocation: resources are distributed unevenly around the world. This resource allocation can be seen in terms of superior **factor endowments** and will enable certain countries to be more efficient at producing certain products than others. This superiority can come about as a result of the availability of natural resources, a favourable climate, knowledge and experience, and fertility of soil. These will give a comparative advantage over other countries.
- Cheaper production methods: as a result of certain countries specialising in producing the products that they are better suited to producing, there is less waste and production can be as efficient as possible, reducing the cost of production.

Key term

Factor endowments: the quantity and quality of land, labour, capital and enterprise that a country possesses and can use in the production process

The advantages and disadvantages of specialisation at a national level

	Advantages	Disadvantages
Consumers	Specialisation at a national level enables production to take place at a relatively low cost; this could lead to consumers being charged relatively low prices for products. Consumers also have access to a greater variety of high-quality products from around the world so consumers have a greater choice of products.	If a country concentrates on producing what it is good at producing, and leaves other countries to produce what they are good at producing, it could lead to consumers having to import a large number of products to meet its needs.
Firms	Specialisation at a national level enables firms to be very efficient so output is increased. Specialisation at a national level can increase the size of a market, enabling firms to benefit from economies of scale, keeping costs of production down.	If a country fails to take advantage of its superior factor endowments, firms may lose their competitive edge and lose out to firms in other countries who may be able to take advantage of lower wages.
The economy	Scarce resources in an economy are efficiently allocated and used, leading to a higher GDP and higher standards of living.	If a number of firms experience difficulties, this could lead to an increase in the level of unemployment in a country, reducing living standards. An economy could also suffer if its foreign exchange rate becomes uncompetitive and/or there is a worsening of world economic conditions, e.g. as a result of a worldwide recession.

Apply

1. Explain how factor endowments can affect the relative efficiency of different countries.
2. Explain the main advantages and disadvantages of specialisation at a national level for consumers.

Recap

Specialisation at a national level arises because of superior resource allocation and cheaper production methods.

There are advantages and disadvantages of specialisation at a national level, for consumers, firms and the economy.

Research

On page 204 of the Student Book there are a number of different examples of specialisation at a national level.

You need to know:

- the definition of globalisation; what multinational companies are and the costs and benefits to their host and home countries
- the benefits for consumers, producers and the economy in a variety of countries
- tariffs, import quotas, subsidies and embargoes
- the reasons for protection, including infant industry, declining industry, strategic industry and the avoidance of dumping; the effectiveness of protection and its impact on the home country and its trading partners

Key terms

Host country: the country where a multinational decides to locate and establish a manufacturing plant

Home country: the country where a multinational is based and has its headquarters

Recap

Globalisation allows economies to become increasingly interconnected. As barriers between countries are reduced, a greater amount of trade can take place

MNCs are defined in terms of their decision to locate manufacturing plants in different countries. There are benefits and costs to the host and home countries

Activity

Analyse the benefits and costs of an MNC that is located in your country or a country of your choice

Case study

There are case studies in the Student Book on: the impact of globalisation on the Caribbean on page 206, one multinational company on page 208

6.2.1 Globalisation and the role of multinational companies

The meaning of globalisation

Globalisation can be defined as the free movement of goods, services, capital, labour and technology. In a global economy, goods and services can be produced in many different countries and transported for sale all over the world. This leads to greater competition, greater efficiency, improved quality and lower prices. Globalisation can therefore be seen as the process that leads to an increasing world market in goods and services, making an increase in multilateral trade and an improvement in living standards more likely.

Multinational companies (MNCs)

A multinational company (MNC) is one that produces and sells products in a number of different countries. An MNC will have a headquarters in one country, but many production units in other countries

MNCs have both costs and benefits, both to their **host** and **home countries**

Benefits of MNCs to host countries	Costs of MNCs to host countries
MNCs provide jobs to local people, helping to bring down the rate of unemployment in the country	The wages paid may not be very high and, in many cases, the top management positions are reserved for nationals of the home country of the MNC
MNCs can bring new products to a country	These new products may be too expensive for many people in the host country
MNCs can introduce new technologies to a country and help improve the skills of its workers	Some MNCs employ local workers in relatively low-skilled jobs, known as 'screwdriver' jobs
MNCs can help speed up the economic development of countries	Some MNCs have been criticised for causing pollution and environmental damage
MNCs will usually pay some tax on their profits and this money will go to the government to be spent on improving such things as education, health care and infrastructure	Sometimes MNCs pay low rates of tax or even no tax, e.g. they may have been given a 'tax holiday' by the government to help persuade the firm to locate in the host country
The MNC can gain access to natural resources that are not available or in limited supply in their domestic or home market	People may have different tastes and requirements in other markets, which could make production more expensive
The MNC can employ labour at a lower wage than in its own country	The laws and regulations may be very different from those in the home country

The powers of trade unions may be more limited than in the domestic economy, meaning less days lost as a result of industrial action	The government in a host country may insist that a MNC leaves, possibly for political reasons.
The MNC will have access to markets all over the world, many of which may be significantly larger than the home market.	There will be intense competition in many markets around the world and there is no guarantee that the MNC will be successful in all of them.

6.2.2 The benefits of free trade

Free trade means trading without hindrance in international markets in the form of barriers such as tariffs, quotas, subsidies or embargoes.

	Benefits of free trade
Consumers	Consumers will have more products of better quality to choose from, leading to an improvement in standards of living. The products may also be lower in price as a result of the lower costs of production.
Producers	Producers are able to specialise in what they do most efficiently. This should give rise to economies of scale with more produced at a lower cost per unit. Firms will also be encouraged to take advantage of a wider range of ideas in terms of the products to make and the use of advanced technology to make them. They will need to employ more workers to produce the goods and services required, and will also be able to benefit from a wider range of sources of raw materials and component parts.
The economy	Free trade will lead to an increase in the global output of goods and services, leading to a higher GDP figure for economies and a higher rate of employment.

Key terms

Free trade: trade that takes place in international markets without the existence of tariffs, quotas or any other restrictions on trade

Recap

There are benefits of free trade in a variety of countries for:

- consumers
- producers
- the economy.

Apply

Explain the benefits of free trade for firms.

Research

There is a map of the ASEAN-China free trade area on page 210 of the Student Book. This free trade area, comprising the ten countries of ASEAN (Association of South East Asian Nations) as well as the People's Republic of China, is the largest in the world in terms of population.

6.2.3 The methods of protection

Protectionism, or trade **protection** refers to the limits and restrictions that are placed on foreign goods when they are imported into a domestic market. There are a number of different methods of protection that can be used in international trade

Import **tariffs**	A tariff is a tax or duty that is placed on imports that come into a country to make them more expensive. The increased price will deter domestic consumers from buying the imported products and persuade them instead to buy the local products. However, the actual effect will depend on the price elasticity of demand for the more expensive imports.
Import **quotas**	A quota is a restriction on imports coming into a country. It could be in the form of a physical limit on the number of products imported, a limit on the market share that can be taken by imports or a limit on the value of the products imported. These restrictions are also likely to make the products more expensive than they would otherwise be.
Subsidies	A subsidy is where a government gives a firm or an industry financial help to keep the costs of production relatively low, meaning that lower prices can be charged for the products. If a subsidy is given to domestic producers, this will enable them to charge lower prices so consumers will be more inclined to buy the cheaper domestic products.
Embargoes	An embargo is a complete ban on the import of certain types of products or on the imports of all products from particular countries.

Key terms

Protection: the measures that are taken to limit and restrict the entry of imports into a country in order to give domestic industries an increased advantage

Tariff: a tax or duty that has to be paid to import a product into a country

Quota: a limit on the imports that are allowed to enter a country

Embargo: a ban on imports of particular products or on all imports from a particular country

▲ **Figure 85** *Ecuador has imposed import tariffs on over 600 goods, including pasta, an important part of the Ecuadorean diet*

Exam tip

An embargo is often imposed on trade with countries for political, diplomatic or military reasons, rather than for economic reasons.

Recap

There are different methods of protection that can be used, including:

- tariffs
- quotas
- subsidies
- embargoes

Check

Which of the following methods of protection involves the imposition of a tax?

a. Embargo **c.** Subsidy
b. Quota **d.** Tariff

Connect

There is a case study on Ecuador's protectionist measures on page 213 of the Student Book

6.2.4 The reasons for and consequences of protection

Countries impose protectionist methods for a variety of reasons.

Protection of an **infant industry**	A new or infant industry (also known as a sunrise industry) may find it difficult to effectively compete with industries that have been established in other countries for a long time. As such industries are often high cost and low output in the early stages of development, they may be protected, at least for a period of time, to allow them to become more competitive.
Protection of a **declining industry**	An established industry may find it difficult to compete with industries established in other countries and if this industry was allowed to decline too quickly, the unemployed workers may find it difficult to find alternative employment. Protection can therefore be justified to help an industry to decline more slowly (also known as a sunset industry).
Protection of a **strategic industry**	Some industries may be regarded as strategic in that they play a key role in an economy. In some countries this could be agriculture, while in other countries it could be energy.
Avoidance of dumping	Industries in other countries may try to penetrate a market by dumping, selling a product at a price that is below the cost (the marginal cost) of production. Protection can be justified in such a situation.

Although there are a number of reasons for protection, there can be serious consequences for the home country of imposing the methods of protection on its trading partners.

- Methods of protection imposed by one country can lead to similar methods of protection being taken by other countries in retaliation. The consequence of this could be a reduction in world trade, output and employment.
- Protectionism can lead to a reduction in economic efficiency as less efficient firms survive instead of being allowed to go out of business.
- Protection may be justified in the short term, for example to allow a sunset industry to gradually decline, but in the long term there is likely to be slower economic growth, a loss of trade and an increase in unemployment.

Key terms

Infant industry: an industry at an early stage of development

Declining industry: an industry at a late stage of development

Strategic industry: an industry that is considered as important for the future development of a country

Recap

There are a number of reasons for protection, including the protection of an infant industry, the protection of a declining industry, the protection of a strategic industry and the avoidance of dumping.

Apply

Explain how protection can lead to a reduction in economic efficiency.

Extend

The idea of 'beggar my neighbour' policies, when one country retaliates in response to the actions of another country, is discussed on page 215 of the Student Book.

6.3 Foreign exchange rates

You need to know:

- floating and fixed exchange rate systems
- the demand for, and supply of, a currency in the foreign exchange market and the determination of the equilibrium foreign exchange rate
- changes in the demand for exports and imports, changes in the rate of interest, speculation and the entry or departure of MNCs; the effects of foreign exchange rate fluctuations on export and import prices and spending on imports and exports via the price elasticity of demand

Key terms

Foreign exchange rate: the price of one currency in relation to the price of another currency

Fixed exchange rate system: the value of a currency is fixed in terms of other currencies and this rate is maintained by a government through its intervention in the foreign exchange market

Floating exchange rate system: the value of a currency is allowed to move up and down in response to changes in the demand for, and the supply of, a currency

Common error

Candidates often confuse the internal value and the external value of a currency. The internal value, or purchasing power, will be affected by the rate of inflation in an economy, that is, if a country experiences inflation of 5%, the real value of money will fall by 5%. However, the external value of a currency is determined by the demand for, and the supply of, that currency on the foreign exchange market.

6.3.1 Definition of foreign exchange rates

The **foreign exchange rate** of a country's currency is the price of that currency in terms of another currency – it shows how much one currency is worth in terms of another. However, the foreign exchange rate of a currency is not always measured in terms of just one other currency. Sometimes the foreign exchange value of a currency can be measured against a 'basket' of other currencies, weighted according to the importance of these currencies in international transactions. In this situation, the foreign exchange rate is known as the **fixed exchange rate**.

Sometimes a foreign exchange rate is fixed at a particular value and the government of a country will intervene in the foreign exchange market, buying or selling units of currency, to maintain a particular price or value. Other foreign exchange rates may not be maintained at a certain price by a government, but are allowed to float, that is, they move up or down according to the demand for, and the supply of, the currency on the foreign exchange market. This is known as the **floating exchange rate system**.

Recap

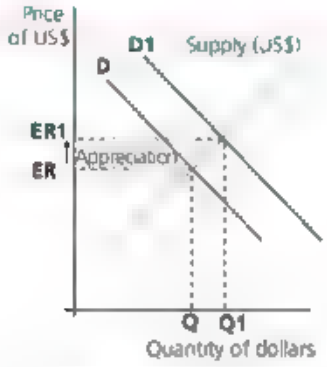
- The foreign exchange rate of a currency is the value or price of that currency in relation to the value or price of other currencies.
- Foreign exchange rate systems can be either floating or fixed.

Apply

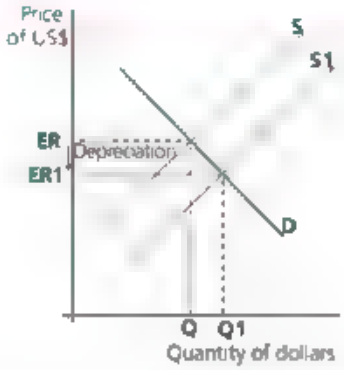
Explain what is meant by a floating exchange rate.

6.3.2 Determination of the foreign exchange rate in the foreign exchange market

The price or value of a currency is determined just like any other price in a market, that is, by the forces of demand and supply. Figure 86 shows how the equilibrium foreign exchange rate is determined in a market where the demand for a currency is equal to the supply of a currency. Q represents the quantity of US dollars and the price of US dollars is shown by ER. However, if there is an increase in the demand for a currency, this will cause the demand curve to shift to the right, from D to D1, and the effect of this is an increase in the price from ER to ER1 and an increase in the quantity from Q to Q1. This increase in the value of a currency is known as an **appreciation**.



▲ **Figure 86** *An appreciation of the US dollar*



▲ **Figure 87** *A depreciation of the US dollar*

Changes in the foreign exchange rate of a currency can not only be caused by a change in the demand for a currency, but also by a change in its supply. Figure 87 shows the effect of an increase in the supply of a currency, causing the supply curve to shift to the right from S to S1. The effect of this is a decrease in the price from ER to ER1 and an increase in the quantity from Q to Q1. This decrease in the value of a currency is known as a **depreciation.**

The terms 'appreciation' and 'depreciation' are used where there is a floating foreign exchange rate system. However, with fixed foreign exchange rate systems, a government can intervene to bring about a change in the value of a currency. If the value goes up, it is called a **revaluation**. If the value goes down, it is called a **devaluation**.

Exam tip

Remember that the term depreciation has two meanings. In relation to foreign exchange rates it means a fall in the value of a currency in a floating foreign exchange rate system. However, in relation to the use of capital equipment it means a fall in the value of capital equipment over time as a result of wear and tear.

Learn

- The equilibrium foreign exchange rate of a currency is determined by the demand for, and the supply of, a currency in the foreign exchange market.
- This equilibrium position can be affected by changes in the demand for and/or the supply of currencies.
- Changes in the value of a currency in a floating foreign exchange rate system are known as an appreciation or a depreciation.
- Changes in the value of a currency in a fixed foreign exchange rate system are known as a revaluation or a devaluation.

Key terms

Appreciation: a rise in the value of a currency in a floating foreign exchange rate system.

Depreciation: a fall in the value of a currency in a floating foreign exchange rate system.

Revaluation: a rise in the value of a currency in a fixed foreign exchange rate system.

Devaluation: a fall in the value of a currency in a fixed foreign exchange rate system.

Key term

Speculation: the buying and selling of currencies in foreign exchange markets under conditions of uncertainty with a view to earning large gains

6.3.3 Causes and consequences of foreign exchange rate fluctuations

Fluctuations in the foreign exchange rate of a currency can be caused by a number of factors. These include:

- changes in demand for exports and imports
- changes in the rate of interest
- **speculation**
- the entry or departure of MNCs.

The effects of foreign exchange fluctuations on export and import prices

Change in value of currency	Effect on export prices	Effect on import prices
External value of currency goes up (appreciation)	Exports from home country become more expensive to customers in other countries and are more difficult to sell. Exporters are likely to sell less and make less profit. The value of exports decreases.	Imports from other countries become cheaper, including raw materials and finished goods. Customers will find the products cheaper to buy so the producers of these products will sell more and make more profit. The value of imports increases.
External value of currency goes down (depreciation)	Exports from home country become less expensive to customers in other countries and are easier to sell. Exporters are likely to sell more and make more profit. The value of exports increases.	Imports from other countries become more expensive, including raw materials and finished goods. Customers will find the products more expensive to buy so the producers of these products will sell less and make less profit. The value of imports decreases.

Spending on imports and exports

The consequences of foreign exchange rate fluctuations, especially on export and import prices, will depend on the price elasticity of demand for the products traded in international markets.

It is often stated that a depreciation in the external value of a currency will be good for an economy, but the actual effect will depend on the price elasticity of demand for both exports and imports. For example, if the price elasticity of demand for exports is elastic, a depreciation of the currency will lead to a more than proportionate increase in sales of exports, increasing export revenue. However, if the price elasticity of demand for exports is inelastic, a depreciation of the currency will lead to a less than proportionate increase in sales of exports, reducing export revenue.

Key points

- Fluctuations in foreign exchange rates can be caused by a number of factors.
- Foreign exchange rate fluctuations will have an impact on export prices and import prices.
- The effect on spending on exports and imports will depend on the price elasticity of demand for exports and imports.

Activity

Explain the effects of a depreciation of the foreign exchange rate of a currency on both exports from a country and imports into that country.

Case study

There is a case study of the Malaysian ringgit on pages 220–221 of the Student Book.

You need to know:

- **the components of the current account of the balance of payments; calculation of deficits and surpluses on the current account of the balance of payments and its component sections**
- **reasons for deficits and surpluses; the impact on GDP, employment, inflation and the foreign exchange rate**
- **the range of policies available to achieve balance of payments stability and how effective they might be**

6.4.1 Structure of the current account of the balance of payments

The current account of the balance of payments is composed of four sections.

Trade in goods	The value of the imports and exports of tangible/physical goods.
Trade in services	The value of the imports and exports of non-tangible/non-physical services such as banking and insurance. The trade in goods and services is contained in the balance of trade in goods and services account.
Primary income	The remuneration (e.g. wages and salaries) and the investment income (e.g. profits and dividends) that moves between different countries.
Secondary income	The transfer of money that does not relate to economic activity (e.g. gifts and charitable donations).

To calculate **deficits** and **surpluses** on the current account, take into account the value of debits, where payments are made, and the value of credits, where payments are received. For example, olives are one of Greece's main exports, and they appear as a credit item in the trade in goods component of the country's current account of the balance of payments.

Key terms

Trade in goods: the value of exported and imported goods

Trade in services: the value of exported and imported services

Primary income: income in the form of wages and profits that is transferred in and out of a country

Secondary income: transfers between countries in the form of gifts and charitable donations

Deficit: the excess of expenditure on imports over the revenue received from exports

Surplus: the excess of revenue received from exports over the expenditure on imports

Recall

The current account of the balance of payments is made up of four components.

- trade in goods
- trade in services
- primary income
- secondary income

Explain

Explain what is meant by the balance of trade in goods and services account.

Worked example

There are examples of calculations of deficits and surpluses on the current account of the balance of payments on page 223 of the Student Book.

6.4.2 Causes and consequences of a current account deficit and surplus

The causes of a current account deficit or surplus

A current account **deficit**, where expenditure exceeds income, can be caused by a number of factors.

- If a country has insufficient domestic resources, it may need to import goods and services.
- Inefficient organisation of production, possibly resulting from poor infrastructure, will lead to relatively low levels of output so there will be a need to import goods and services.
- If the foreign exchange value of the currency is too high, that is, it is overvalued, exports will be relatively expensive and if the demand for them is elastic, it will be difficult for firms to export products.

A current account **surplus**, where income exceeds expenditure, can be caused by a number of factors.

- If the quality of the products exported is relatively good compared with that of other countries, exports will be in strong demand and this will enable a country to build up a current account surplus.
- If the foreign exchange value of the currency is relatively low, that is, it is undervalued, exports will be relatively low in price and if the demand for them is elastic, it will encourage firms to export products.
- If incomes in other countries are relatively high, this will enable people living in those countries to more easily purchase a country's exports.

Consequences of a current account surplus or deficit

Impact	Deficit	Surplus
Gross domestic product (GDP)	A regular deficit on the current account will lead to an increase in debt which will need to be repaid. Part of GDP will need to be set aside to pay this debt, leaving less for consumption and investment.	If export industries do well, leading to a current account surplus, GDP in an economy will rise.
Employment	Less GDP comes from production, the rate of unemployment in the country is likely to rise.	There is likely to be a rise in employment in the economy, especially in those industries that export a lot of products to other countries.
Inflation	If there is a fall in total demand in an economy as a result of a deficit, it is likely to lead to a reduction in the level of inflation.	There is likely to be a rise in total demand in an economy as a result of a surplus and this could lead to an increase in the inflation rate.
Foreign exchange rate	The value of the foreign exchange rate will fall as a result of a persistent current account deficit.	The value of the foreign exchange rate will rise as a result of a persistent current account surplus.

Recap

Deficits and surpluses in the current account of the balance of payments will have an impact on an economy in terms of consequences for GDP, employment, inflation and foreign exchange rate.

Apply

Explain the impact of a current account deficit on the GDP of an economy.

6.4.3 Policies to achieve balance of payments stability

Policies to reduce a balance of payments surplus

A number of policies can be adopted to try and reduce a surplus.

- The country's currency can be allowed to rise, or appreciate, making exports more expensive and imports less expensive, but the effectiveness of this will depend on the price elasticity of demand for the exports and imports.
- Restrictions on imports coming into a country could be reduced, making it more likely that the demand for imports would rise, but although this might be effective in reducing a current account surplus, it could have negative side effects. For example, if more imports are being demanded, this could lead to a reduction in the demand for domestic products and therefore a rise in the level of unemployment in the economy.

Policies to reduce a balance of payments deficit

A number of policies can be adopted to try and reduce a deficit.

- There could be an increase in the use of methods of protection, such as quotas and tariffs, to restrict imports, but the effectiveness of this policy could be negatively affected by decisions of other countries to retaliate by also imposing tariffs and quotas on imports into their countries.
- Exports could be encouraged through the use of subsidies, but this would involve the government having to finance the cost of the subsidies out of its limited funds.
- The foreign exchange value of the currency could fall, or depreciate, so that exports become cheaper and imports more expensive, but the effectiveness of such a policy will depend on the price elasticity of demand for the exports and imports, that is, the demand will need to be relatively elastic, but this may not necessarily be the case.

There are a number of policies that can be used to try to reduce a current account deficit or a current account surplus, but there are various factors that could affect the effectiveness of such policies.

Describe one policy that could be used to try and reduce a current account surplus.

There is a case study on Germany's current account balance on page 227 of the Student Book.

Exam-style question 1

a. Define the term 'factor endowments'. [2]

b. Describe **one** advantage and **one** disadvantage to firms of specialisation at a national level. [4]

c. Analyse the key features of globalisation. [6]

d. Discuss whether the location of a multinational company in a country is always beneficial to that country. [8]

Analysis

✓ In (a), you will need to clearly define both 'factor' and 'endowments'.

✓ In (b), you will need to make sure that one advantage and one disadvantage to firms of specialisation at a national level are described and not two advantages or two disadvantages.

✓ In (c), you will need to focus on the key features and characteristics of the process of globalisation (the question refers to 'features', so there must be at least two features analysed).

✓ In (d), you will need to consider both the advantages and the disadvantages to a country of a multinational company locating there (note this question relates to the host, not the home country).

Mark scheme

a. One mark each for definitions of 'factor'; another for 'endowments'. [2]

b. Up to two marks for a description of one advantage and up to two marks for a description of one disadvantage. [4]

c. Up to three marks for an analysis of each of two features of globalisation. [6]

d. Up to five marks for a consideration of the potential advantages of a multinational company locating in a country, up to five marks for a consideration of the potential disadvantages of a multinational company locating in a country. [8]

Student answer

(a) The term 'factor endowments' refers to the economic resources that a country can use in the production process. [1 mark]

(b) Specialisation at the national level enables a firm to be efficient at production. A disadvantage is that a firm may not be able to compete with firms in other countries. [2 marks]

(c) One key feature of globalisation is that it involves the free movement of goods, services, capital, labour and technology. In a global economy, goods and services can be produced in many different countries and transported for sale all over the world. A second key feature is that this leads to greater competition, greater efficiency, improved quality and lower prices, making an improvement in living standards more likely. [4 marks]

(d) There are a number of advantages to a country of a multinational company locating there. Multinational companies can provide jobs, reducing the level of unemployment in the country. They can lead to new products becoming available for consumers to buy. They can improve the level of skill and technological knowledge. The companies will usually pay some tax to the country's government and this money can be used to improve the economic development of the country, e.g. through expenditure on merit goods such as education or health care. However, there can also be some disadvantages. For example, the companies sometimes cause environmental damage, such as pollution, and do not always pay taxes to the government of the country. [6 marks]

Total mark: 13/20

Examiner feedback

a. The candidate has referred generally to 'economic resources', but the definition needed to be more precise in terms of factors of production, that is, the quantity and quality of the land, labour, capital and enterprise that was available to be used for production purposes in a country.

b. The candidate has identified one advantage and one disadvantage to firms of specialisation at the national level, but they have not really been described. For example, the point about efficiency could have been developed more fully in terms of firms being able to benefit from the economies of scale arising from the larger market, leading to lower costs of production. The point about a firm not being able to compete with other firms could have been developed more fully in terms of losing a competitive edge, such as other firms being able to take advantage of power wages.

c. The candidate has made quite a good attempt to analyse two key features of globalisation, with scope to have developed the analysis of each of them more fully. For example, the candidate could have included ideas in terms of globalisation being a process that leads to an increasing world market in goods and services, making an increase in multilateral trade more likely, leading to a much wider choice of products for consumers in different countries.

d. The candidate has considered a number of potential advantages to a country of a multinational company locating there, but there is very little consideration of the potential disadvantages, making the answer rather unbalanced. The candidate could have written further on the possible disadvantages, such as the fact that the higher management positions are often reserved for people from the home country or that some of the jobs given to locals are relatively low skilled, 'screwdriver' jobs.

Exam-style question 2

a. Distinguish between primary income and secondary income in the current account of the balance of payments. [2]

b. Explain **two** possible reasons for a current account surplus. [4]

c. Analyse the impact of a current account surplus on the level of inflation and employment in an economy. [6]

d. Discuss how effective policies to reduce a current account deficit are likely to be. [8]

Analysis

✓ In (a), you will need to clearly distinguish between primary income and secondary income in the current account of the balance of payments, stressing the difference between the two types of income with the use of appropriate examples.

✓ In (b), you will need to not simply identify two possible reasons for a current account surplus, but fully explain them

✓ In (c), you will need to analyse the impact of a current account surplus on both the level of inflation and the level of employment in an economy.

✓ In (d), you will need to discuss how effective policies to reduce a current account deficit are likely to be – that is, you will need to consider both the benefits and weaknesses of such policies. You should also make sure you notice that while (b) and (c) relate to a current account surplus, (d) relates to a current account deficit

Mark scheme

a. One mark for a definition of primary income; one mark for a definition of secondary income [2]

b. Up to two marks each for two explanations of possible reasons for a current account surplus. [4]

c. Up to three marks for an analysis of a current account surplus on the level of inflation in an economy; up to three marks for an analysis of a current account surplus on the level of employment in an economy. [6]

d. Up to five marks for a consideration of the benefits of policies to reduce a current account deficit, up to five marks for a consideration of the limitations of policies to reduce a current account deficit. [8]

Student answer

(a) Primary income refers to the transfer of money between countries relating to economic activity, such as the wages and salaries that are paid to workers or the investment income people receive in the form of profits and dividends. Secondary income refers to the transfer of money between countries that does not relate to economic activity, such as gifts and charitable donations. [2 marks]

(b) One possible reason for a current account surplus is when the quality of products exported is relatively good when compared with the products of other countries, so exports will be in demand and this will enable a country to build up a current account surplus. A second possible reason

for a current account surplus is if the foreign exchange value of a currency is relatively low, that is, it is undervalued, exports will be relatively cheap and if the demand for them is elastic, it will encourage firms to export products. [4 marks]

(c) A current account surplus can have an impact on both the level of inflation and the level of unemployment in an economy. In terms of inflation, the existence of a current account surplus is likely to lead to an increase in total demand in an economy and this could lead to an increase in the rate of inflation, although this outcome will depend on whether the increase in demand can be met by an increase in supply. In terms of employment, the existence of a current account surplus is likely to lead to an increase in the level of employment, especially in those industries that are exporting products abroad. [4 marks]

(d) There are a number of different policies that can be used to try and reduce a deficit in the current account of the balance of payments. One approach would be to increase the use of methods of protection, such as quotas and tariffs, to restrict imports. However, the effectiveness of such a policy could be negatively affected by decisions of other countries to retaliate by also imposing tariffs and quotas on imports into their countries. If a number of countries reacted in this way, although imports might be reduced, it could also lead to a reduction in a country's exports. Another approach would be to encourage exports through the use of subsidies, this would have the effect of lowering the costs of production and therefore prices, making the exports more price competitive in international markets. However, the effectiveness of such an approach would have to be seen in the context of the government having to finance the cost of the subsidies out of the funds it has available, which could be limited. [6 marks]

Total mark: 16/20

Examiner feedback

a. This is a very good answer that clearly distinguishes between primary and secondary income, using appropriate examples to support the answer.

b. This is also a very good answer, with both reasons clearly explained.

c. The candidate has analysed the impact of a current account surplus on both the level of inflation and the level of employment in an economy. In terms of the answer in relation to inflation, the candidate could have developed it a little more fully, for example, by commenting on how easy it would be to increase supply to the domestic economy when a lot of supply is focused on the export market. In terms of the part of the answer relating to employment, this too could have been developed further, for example, by pointing out that the higher export sales will help to create jobs not only in the export industries, but in a range of ancillary industries that supply parts to the exporting firms.

d. The candidate could also have brought the possibility of a change in the exchange rate into the discussion. If the foreign exchange value of the currency was allowed to fall, or depreciate, exports would become cheaper and imports more expensive. However, the effectiveness of such a policy would depend on the price elasticity of demand for the exports and imports, that is, the demand will need to be relatively elastic, but this may not necessarily be the case.

Absolute poverty: a situation of extreme poverty defined in relation to a particular standard or a particular daily sum of money to live on

Actual economic growth: a movement from within the production possibility curve of an economy to a position on, or closer to, the production possibility curve, resulting from the better utilisation of the existing resources

Automatic stabilisers: changes that come about automatically in an economy without the need for policy changes

Average revenue: the average receipt received by a firm from the number of units sold; it is the price charged per unit of a product

Balance of payments: a record of all international transactions

Base year: a year used as a basis for comparison when creating a prices index and given a value of 100

Basic pay: the amount of money that will be received by an employee before any additional payments or any deductions are made

Basket of products: a representative selection of goods and services bought by a typical household in an economy

Birth rate: the number of live births per thousand of the population each year

Boom: positive economic growth when there is an increase in economic activity and a rise in gross domestic product

Broad money supply: a measure of the stock of money that reflects the total potential purchasing power in an economy

Budget: a financial statement that sets out the income and expenditure of a government in a given year

Capital: the human-made aids to production

Capital-intensive production: a production process that uses a relatively high proportion of capital

Casual unemployment: when people are out of work between periods of employment

Central bank: the bank responsible for supervising and regulating the banking and financial system in a country

Claimant count: a measurement of unemployment that counts those receiving unemployment benefits as unemployed

Collective bargaining: the process of negotiation between representatives of the workers and representatives of the employers on such issues as pay and working conditions

Commercial bank (or retail bank): a bank that provides a variety of services to households and businesses

Conditions of demand: the factors that can cause a change in the demand for a product, other than price

Conditions of supply: the factors that can cause a change in the supply of a product, other than price

Conglomerate integration: a merger between two or more firms that are operating in completely different markets and industries rather than in different stages of the same market or industry

Contractionary fiscal policy: where decreases in government expenditure and/or increases in taxation are used to reduce the level of demand in an economy

Cost-push inflation: a general rise in prices caused by an increase in production costs that are passed on to consumers

Current account of the balance of payments: part of the balance of payments made up of four parts – trade in goods, trade in services, primary income and secondary income

Death rate: the number of deaths per thousand of the population each year

Deficit financing (also known as expansionary fiscal policy): where increases in government expenditure and/or decreases in taxation are used to increase the level of demand in an economy

Deflation: the decrease in the general level of prices in an economy over a period of time

Demand: the willingness and ability to buy a product at a given price at a given period of time

Demand-pull inflation: a general rise in prices caused by an increase in the demand for products in an economy that is greater than the ability of an economy to supply

Demerit good: a good with potentially harmful effects but which is overconsumed and overproduced as a result of information failure

Dependency ratio: the number of people in a country who are unable to work divided by the number of people who are able to work

Depreciation: the fall in the value of capital equipment over time as a result of wear and tear

Developed country: a high income country characterised by relatively high levels of real GDP per head, HDI and industrialisation, with lower birth rates and death rates than developing countries

Developing country: a low or middle income country characterised by relatively low or middle levels of real GDP per head, HDI and industrialisation, with higher birth rates and death rates than developed countries

Direct debit: a method of making a regular payment from an account for a variable amount of money

Direct provision: where a government decides to provide a particular good or service itself

Direct tax: a tax on expenditure that is paid by an intermediary

Discretionary fiscal policies: policies designed to achieve a specific objective

Diseconomies of scale: a situation where a larger output is produced at a higher unit cost

Disinflation: a fall in the rate of inflation in an economy

Disposable income: the amount of income that people have to spend on goods and services

Division of labour: a situation where workers specialise on specific tasks

Economic development: a wider term than economic growth that takes into account the expansion of social and economic choices and the increase in self-esteem

Economic good: a good that is scarce relative to the demand for it so a price is charged for this good

Economic growth: the increase in the national output of an economy over a period of time, usually measured through a change in gross domestic product

Economic problem: a situation that arises as a result of the existence of finite resources and unlimited wants

Economies of scale: a situation where a larger output can be produced at a lower unit cost

Elastic demand: when the quantity demanded of a product changes by a greater percentage than the change in price

Elastic supply: when the quantity supplied of a product changes by a greater percentage than the change in price

Emigration: the number of people moving out of a country in a given time period

Enterprise: the coordination of the other factors of production involving the taking of a risk

External benefit: the advantages to the wider community or society resulting from an economic activity

External cost: the disadvantages to the wider community or society resulting from an economic activity

External diseconomies of scale: the cost disadvantages that all firms in an industry experience

External economies of scale: the cost advantages that all firms in an industry gain

External growth: growth of a firm that comes about by joining together with other businesses

Factors of production: the economic resources of land, labour, capital and enterprise that are used in the production process

Financial intermediary: the role that a commercial bank plays in linking savers and borrowers

Finite resources: the existence of resources that are limited

Fiscal policy: the deliberate adjustment of the relationship between government revenue and government expenditure in order to achieve particular policy objectives

Foreign exchange rate: the price of one currency in relation to the price of another currency

Formal economy: the part of an economy that includes all jobs with normal hours and regular wages that are recognised as sources of income on which income taxes must be paid

Forms of money: the different types of money used in an economy, such as notes and coins

Free good: a good that is not scarce relative to the demand for it so no price is charged for this good

Free rider: someone who consumes a product without paying for it

Frictional unemployment: unemployment caused by workers being between jobs

Full employment: the level of employment where everyone who is able and willing to work has a job

Gender wage gap: the difference in average earnings of male and female workers in an economy

Geographical mobility: the ability of factors of production to move from one area to another

Gross domestic product (GDP): the total value of all that has been produced within the geographical boundaries of a country over a given period of time

Gross national income (GNI): the sum of a country's gross domestic product and the net income it receives from abroad

Horizontal integration: when two or more firms at the same stage of production join together

Human Development Index (HDI): an index used to measure human development using three components: standard of living, health and education

Immigration: the number of people moving into a country in a given time period

Incidence of tax: the burden of a tax

Indirect tax: a tax on expenditure that is paid by an intermediary

Individual demand: the demand for a product at different prices by a particular individual

Individual supply: the supply of a product at different prices by a particular firm

Industrial action: when workers attempt to disrupt production as a way of influencing employers

Inelastic demand: when the quantity demanded of a product changes by a smaller percentage than the change in price

Inelastic supply: when the quantity supplied of a product changes by a smaller percentage than the change in price

Inflation: the increase in the general level of prices in an economy over a period of time

Informal economy: the part of an economy that includes barter of goods and services, mutual self-help, street trading and other such activities with the income generated not recorded for taxation purposes

Internal diseconomies of scale: the cost disadvantages that a particular firm experiences from its own increase in output

Internal economies of scale: the cost advantages that a particular firm gains from its own increase in output

Internal growth: growth of a firm that comes about through internal expansion (also known as organic growth)

Joint supply: two or more goods that are produced as part of the same production process

Labour: the human resource enabling both physical work and intellectual work

Labour force survey: a measure of unemployment that counts as unemployed those identified in a survey as being without a job, but who have been actively looking for a job in the past month

Labour-intensive production: a production process that uses a relatively high proportion of labour

Land: a general term used to describe the gifts of nature used in production

Macroeconomics: economic decision making by relatively large-scale units or by groups of individuals

Market: a market refers to any situation where buyers and sellers of a product are brought together

Market clearing price: the price at which the quantity supplied to a market is exactly equal to the quantity demanded in a market

Market disequilibrium: a state where there is a tendency to change

Market equilibrium: a state where there is no tendency to change

Market failure: a situation where market forces give rise to an inefficient allocation of resources in an economy

Market signals: indications that more or less of a product is wanted by buyers through higher or lower prices

Maximum price: a price established in a market below the equilibrium price

Medium of exchange: the ability of money to facilitate making payments for products

Merit good: a good with potentially substantial benefits but which is underconsumed and underproduced as a result of information failure

Microeconomics: economic decision making by relatively small-scale units or by individuals

Minimum price: a price established in a market above the equilibrium price

Minimum wage: a wage established by a government above the market wage and below which no worker can legally be paid

Mixed economic system (or mixed economy): an economic system in which both the private sector and the public sector play a key role

Monetary inflation: a form of demand-pull inflation caused by excessive growth of the money supply of an economy

Monetary policy: a way of influencing an economy through changes in the price and quantity of money

Money: anything that is widely and generally accepted and exchanged for goods and services

Money supply: the amount of money available to the general public and the banking system in an economy

Monopoly: a situation where there is only one firm in a market

Multiplier effect: the amount by which an increase in spending in an economy will bring about an increase of total income in an economy

Narrow money supply: a measure of the stock of money in an economy that is mainly cash

Nationalisation: the process of transferring the ownership of enterprises from the private sector to the public sector

Net migration: the difference between immigration into a country and emigration out of a country during a given time period

Nominal GDP: GDP at current prices that is not adjusted for inflation

Opportunity cost: the next best alternative that is given up when a decision is made

Participation rate: the proportion of those people within the working age range of an economy who are in the labour force

Perfectly elastic demand: when the quantity demanded of a product is completely changed by a change in price

Perfectly elastic supply: when the quantity supplied of a product is completely changed by a change in price

Perfectly inelastic demand: when the quantity demanded of a product is completely unchanged by a change in price

Perfectly inelastic supply: when the quantity supplied of a product is completely unchanged by a change in price

Price elasticity of demand: the responsiveness of the quantity demanded of a product to a change in the price of that product

Price elasticity of supply: the responsiveness of the quantity supplied of a product to a change in the price of that product

Price mechanism: the way in which decisions made by buyers and sellers in an economy interact to determine the allocation of scarce resources

Primary sector: the sector in which workers are employed in the first stage of the production process, such as farming

Private benefit: the advantages to an individual or to a firm resulting from an economic activity

Private cost: the disadvantages to an individual or to a firm resulting from an economic activity

Private sector: the part of an economy that is owned by private individuals and organisations, not the government

Privatisation: the process of transferring the ownership of enterprises from the public sector to the private sector

Potential economic growth: a shift to the right of the production possibility curve of an economy, resulting from a greater quantity and/or quality of resources

Production possibility curve: a graphical representation showing the maximum combination of products that can be produced from given resources and using existing technology at a given time

Productivity: the output per factor of production per period of time

Profit: the amount of money that remains after all costs have been subtracted from the revenue received by a firm

Profit maximisation: the output for a firm is where there is the greatest difference between total revenue and total cost

Progressive tax: a tax that takes a higher proportion of a person's income as that income rises

Proportional tax: a tax that takes an equal proportion of income whatever a person's income is

Public good: a product that is both non-rival and non-excludable, therefore it is provided by a government and financed by taxation

Public sector: the part of an economy that is owned by the government

Quantitative easing: a process whereby a government deliberately buys bonds and bills to increase the money supply in an economy

Real GDP: GDP at constant prices that is adjusted for inflation

Recession: a situation of negative economic growth when there is a fall in GDP over two consecutive quarters (three-month periods)

Regional unemployment: unemployment that is concentrated in particular regional areas

Regressive tax: a tax that takes a larger proportion of low incomes than it does of high incomes

Regulation: a variety of rules or laws that apply to firms in different circumstances

Relative poverty: a situation of poverty defined in relation to others in a country, such as in terms of a percentage of average income

Resources: the factors of production that are used to produce goods and services

Revenue: the money obtained from selling a certain quantity of products at a given price per item

Scarcity: a situation where there is a limited supply of a product or resource compared with the demand for it

Search unemployment: when workers who have lost their jobs are searching for new ones, but are finding it difficult because there is too little information available about vacancies

Seasonal unemployment: when workers are only demanded at certain times of the year

Secondary sector: the sector in which workers are employed in the second stage of the production process, such as manufacturing

Social benefit: the addition of the private benefit and the external benefit resulting from an economic activity

Social cost: the addition of the private cost and the external cost resulting from an economic activity

Specialisation: the process whereby individuals, firms and economies concentrate on producing those products in which they have an advantage

Spending: the exchange of money for goods and services

Store of value: the use of money to store wealth

Structural unemployment: unemployment caused by long-term changes in the pattern of demand and in the structure of an economy

Subsidy: a payment made to producers by a government to keep down the cost of production

Supply: the quantity of a product that producers are able and willing to sell at a given price in a given period of time

Supply-side policy: a range of measures designed to increase the level of supply in an economy by enabling markets to perform more efficiently

Takeover: the purchase of 51% or more of the shares of another firm in order to take over control of that business

Tax: a compulsory payment that has to be made to a government

Technological unemployment: where workers lose their jobs as a result of advances in technology

Tertiary sector: the sector in which workers are employed in the third stage of the production process, such as teaching

Total revenue: the average revenue multiplied by the number of units sold; the total receipts received by a firm from its selling activities

Trade union: an association of workers formed to protect and promote the interests of its members

Unemployment rate: the number of people unemployed divided by the total number in the labour force

Unitary elastic demand: when the quantity demanded of a product changes by the same percentage as the change in price

Unitary elastic supply: when the quantity supplied of a product changes by the same percentage as the change in price

Unlimited wants: the existence of wants that are infinite

Vertical integration: two or more firms join together at different stages of production, either at an earlier stage of the production process (backward vertical integration) or at a later stage of the production process (forward vertical integration)

Weight: a measure of the importance attached to goods and services appearing in a prices index; the higher the weight, the greater the proportion of income spent on a product

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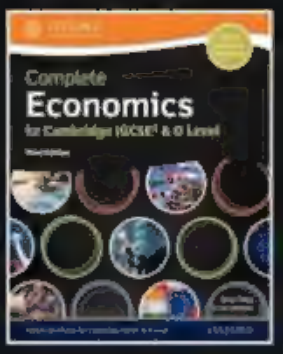

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